Furniture &cabinetmaking

DESIGN • INSPIRATION • PROJECTS • TECHNIQUES • TESTS • NEWS • EXCELLENCE



Cabinetmaker turned planemaker Oliver Sparks

Hybrid joints

The perfect blend of form and function

Build a Moxon vise

the complete dovetailing workstation

Finger joints made easy

The masters of marquetry with Yannick Chastang

Anne of all trades going to work on an eggbeater

Project:

Scandinavian workbench simplified

Unit 2, Sovereign Business Park, Joplin Court, Crownhill, MK8 0JP MILTON KEYNES
Tel: 01908 635 000, info@ukfelder.co.uk, www.ukhammer.co.uk

C3 31 STARTER SET



C3 31 Comfort **COMBINATION MACHINE + STARTER-SET**

- 4.0 HP (3.0 kW) motor
- Format sliding table 2000 mm
- 1100 mm outrigger table
- Precision mitre index system
- 1300 mm crosscut fence for outrigger table
- Planer fence tilts from 90° to 45°
- Surface planer table length 1400 mm
- Planing width 310 mm
- Remarkably user friendly
- Allows rapid retooling

~~6.718,05~~

5.390,00

Save up to 1.328,05 £ excl. VAT

Universal saw blade
∅ 315 mm, Z 48



+

Cutterhead set
Universal cutter head
(steel made)





+

AF 12 dust extraction extractor
with dust bag quick change system



MARK KILROY

"Doing it well is really important and this machine has enabled me to push myself to become better at what I do"



FINE FURNITURE WITH THE C3 31

MARK KILROY USES ONLY THE BEST TO ACHIEVE PERFECTION

Mark Kilroy is a manufacturer of fine furniture. After training with David Savage, a fine furniture maker located in Devon, he subsequently completed a course with Dennis Sutton, further refining his skills. Having worked professionally for a number of years, Mark now makes furniture as a hobby, with all of his creations made in solid wood. He has made numerous components for his own kitchen and has made a stunning desk for his wife. A chest of draws with handmade veneers is one of his recent projects.

There are certain things that stand out with this machine and they are absolutely essential for a machine of this calibre. It is a decent and reliable saw and the planer and spindle are amazing. "Doing it well is really important and this machine has enabled me to push myself to become better at what I do".

When Mark was looking for a machine to purchase, he explained his meticulous research process and found that compared to others; the Hammer C3 31 was better made and better engineered. He stated that it is "significantly at the higher end of hobby machines". Passionate about producing quality, Mark says his C3 31 is the absolute centre of his workshop and it does everything he wants it to do. "I can run it for hours at a time, not to mention the spindle which has a lot of power and is just amazing for curved work."

"The C3 31 is a brilliant machine which is simply super. I enjoy using it and I like to be around it. With most machines there is always something that lets it down, but this one has no vices and is easy to operate."

See how a Hammer can benefit your workshop at:
www.ukhammer.co.uk *or call* ***01908 635 000***

The machines are occasionally pictured with optional equipment.
Please consult the price list for the various machine options.
ENG GBP.8

The Ultimate Protection

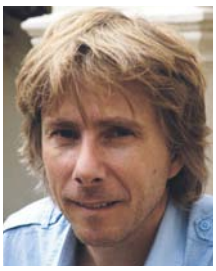
Skelton Saws are pleased to endorse VanGuard,

the world's most advanced corrosion protection system for fine quality hand tools.



Available from
www.workshopheaven.com





Welcome to...

'A to B via Jupiter' (Rod Junkins)



PHOTOGRAPH BY GMC/DEREK JONES

The Moxon vice hardware kit from BenchCrafted

It's often said that the biggest tool you have in the workshop is your bench, or is it the biggest jig? Actually, I think it might be the biggest clamp, but whatever the phrase is, it's well used and not in danger of wearing out any time soon. Its purpose is to make us pause for a moment and re-think a popular concept. I try and do this as often as I can, much to the annoyance of those around me, I'm sure.

'You never know when' syndrome

I guess that, like a lot of woodworkers, my time is spent balancing the desire to collect – hoard – all the tools I need for any given task – it's the 'you never know when' syndrome, with an equally strong desire to be the leanest, meanest and most efficient woodworker there is. In all probability, it really depends on which side of the bed I got out of that morning rather than nurturing a strong desire for either philosophy.

According to Benjamin Franklin, Mark Twain et al, there are only two certainties in life: taxation and death. Don't quote me, but they obviously weren't woodworkers. How do I know? Well, for a start there are no absolutes in woodworking. Everything we make is a prototype. Our favourite project is the one we're working on now and our best piece of work will be the next project. Now, either we like to hedge our bets or we're naturally averse to fatality.

The Art of Creative Thinking

My favourite quote this month comes from a book by Rod Junkins – *The Art of Creative Thinking*: 'It's not what you look at, it's what you see'. There's a review of this book in our Workshop Library on page 72 and this advice holds true with a number of our features and articles this month, not least our cover image. This is the last in our series of Japanese joints articles by John Bullar and one that has encouraged me to look again at some of my construction techniques. In keeping with this theme, we have two projects for you this month that are unashamedly reworks of tried and tested forms. The first is a bench; the second is a bench aid. Though neither of them are new designs, at the end of the day they are rites of passage for all woodworkers. Find time to build your version of at least one of these and you will be well on your way to woodworking enlightenment.



Derek Jones
derekj@thegmcgroup.com

Furniture &cabinetmaking

EDITOR Derek Jones
Email: derekj@thegmcgroup.com
Tel: 01273 402843

DEPUTY EDITOR Tegan Foley
Email: teganf@thegmcgroup.com

DESIGNER Oliver Prentice

GROUP EDITOR – WOODWORKING Mark Baker
Email: markb@thegmcgroup.com

SENIOR EDITORIAL ADMINISTRATOR Karen Scott
Email: karensc@thegmcgroup.com
Tel: 01273 477374

ILLUSTRATOR Simon Rodway

CHIEF PHOTOGRAPHER Anthony Bailey

ADVERTISING SALES EXECUTIVE
Russell Higgins, Email: russellh@thegmcgroup.com

ADVERTISEMENT PRODUCTION & ORIGINATION
GMC Repro Email: repro@thegmcgroup.com
Tel: 01273 402810

PUBLISHER Jonathan Grogan

PRODUCTION MANAGER Jim Bulley
Email: jimb@thegmcgroup.com
Tel: 01273 402810

PRODUCTION CONTROLLER
repro@thegmcgroup.com

CIRCULATION MANAGER Tony Loveridge

MARKETING Anne Guillot

SUBSCRIPTIONS Helen Christie
Tel: 01273 488005, Fax: 01273 478606
Email: helenc@thegmcgroup.com

PRINTED IN THE UK
Stephens and George Print Group

DISTRIBUTION Seymour Distribution Ltd
Tel: 020 7429 4000

Furniture & Cabinetmaking magazine (ISSN 1365-4292) is published every four weeks by Guild of Master Craftsman Publications Ltd

SUBSCRIPTION RATES (includes p&p)

	UK	Europe	Rest of World
12 issues	£51.00	£63.75	£71.40
24 issues	£102.00	£127.50	£142.80

US subscribers visit www.lightningpublications.com for subscription rates in USD $.

Cheques made payable to GMC Publications Ltd
Current subscribers will automatically receive a renewal notice (excludes direct debit subscribers).

Post your order to: The Subscription Department, GMC Publications Ltd, 166 High Street, Lewes, East Sussex BN7 1XU Tel +44 (0)1273 488005, Fax +44 (0)1273 402866 Email: pubs@thegmcgroup.com
Website: www.thegmcgroup.com

Views and comments expressed by individuals in the magazine do not necessarily represent those of the publishers and no legal responsibility can be accepted for the results of the use by readers of information or advice of whatever kind given in this publication, either in editorial or advertisements. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior permission of the Guild of Master Craftsman Publications Ltd.

© Guild of Master Craftsman Publications Ltd. 2015

Problems finding F&C? Call Tony Loveridge, our Circulation Manager, on 01273 477374 or email him at tonyl@thegmcgroup.com Alternatively, save up to 20% on the cover price by subscribing. Visit www.thegmcgroup.com/publications

Woodworking is an inherently dangerous pursuit. Readers should not attempt the procedures described herein without seeking training and information on the safe use of tools and machines, and all readers should observe current safety legislation.

Contents

Issue 233 July 2015



The use of Japanese joints in comtemporary furniture – see page 30 for the full article. Front cover image by John Bullar

Design & Inspiration

18 In the workshop with Oliver Sparks
We've all got an eye for a good tool but how many of us ever get round to making one? This cabinetmaker turned planemaker did precisely that and now the future is bright

42 Our correspondent
Joseph Thompson of Joseph Thompson Woodworks discusses chair repairs and the importance of respecting and maintaining the item's integrity

52 Paintings in wood
Yannick Chastang looks at the tools and techniques used by 18th-century craftsmen to create masterpieces in marquetry

80 Under the hammer
This month, we take a look at another prized lot from Bonhams' recent Fine English Furniture and Works of Art sale



Projects & Techniques

23 The Scandinavian workbench, made easy!
David Barron customises this traditional design to make a simple and robust bench

30 Japanese joints – part 6
In the final part of his series, John Bullar looks at the use of Japanese joints in contemporary furniture

37 Twin screw or Moxon?
Call it what you like, the BenchCrafted kit is the height of sophistication

44 Brace yourself for a very boring article!
Creating holes 'the slow way' is very enjoyable, satisfying work and this practice can help grow your skill set in many other areas of woodworking as well, as Anne Briggs Bohnett explains here

48 The saw doctor will see you now
In the third part of this series, Mark Harrell looks at restoring the wooden handle on your vintage saw

57 When conservation meets making
Franciszek de Sage shows how non-interventive techniques can be used to conserve a precious original piece

61 Taming the Domino joiner
Charles Mak shares some proven techniques and tips to get more out of the Domino joiner

65 The 'world's best' finger joint jig
Derrick Wilkinson shows us how to make this handy jig, which is an excellent solution if you need to cut a lot of finger joints



Don't forget there are plenty more articles and discussions to be found on the Woodworkers Institute ***www.woodworkersinstitute.com***





Your *F&C*

3 Leader
Derek Jones welcomes you to this month's issue of *F&C*

6 News & events
A round-up of what's going on in the world of furniture

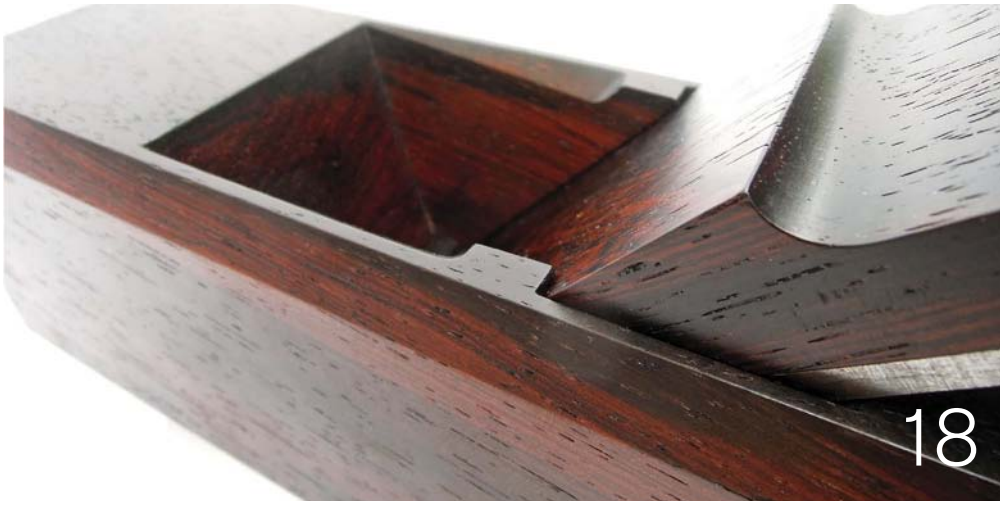
10 F&CUK
An open invitation for furniture makers to let us know what you're up to…

12 Editor's choice
Having trouble sourcing the right tool for the job? Derek Jones sets about identifying the essential tools and equipment on offer this month

28 Next month
Get a peek at what we'll be bringing you in issue 234

72 Workshop library
Derek Jones reviews *The Art of Creative Thinking* by Rod Judkins and a book on Wharton Esherick. Website of the month is the Drunken Woodworker







SUBSCRIBE
AND SAVE UP TO
30%



www.thegmcgroup.com
or call 01273 488005





Contribute to these pages by telling us about matters of interest to furniture makers. Call Tegan Foley on 01273 402 839 or email teganf@thegmcgroup.com. Please accompany information with relevant, hi-res images wherever it is possible

News&Events

Somerset Guild of Craftsmen Furniture Prize 2015



Outside the Courthouse Gallery



Blanket chest



Rocking chair

PHOTOGRAPHS BY MALCOLM RIGBY

A county guild of craftsmen is expanding the accessibility of a carpentry competition in order to increase the profile of furniture making. For the last three years, the Somerset Guild of Craftsmen, the second oldest guild in the country, together with Somerset Art Works and Friends of Somerset Arts, has set a challenge to the student furniture makers of Bridgwater College to create the finest piece of work for the year, but now the quest is being widened to include the students and apprentices of Bristol College and the private firm of Williams and Cleal.

According to organiser and Guild Member Chris Tipple, the intention in the future is to expand yet further. He said: "This year it's different, because we have put our toe in the water to try and expand it to additional furniture-making student facilities. The idea is to expand through the whole of Somerset, but it's a step at a time. The long term objective isn't just the whole of Somerset, but covering the south west, the south of England and as far as we can make it. We're trying to grow a big oak tree from a little acorn and develop the furniture prize into something that is a whole lot bigger and this year, as the first year of growing the exhibition, we're expanding a little bit slowly to start with to make sure we've covered all the bases properly."

Pieces on display

Entries to the competition will be on display at the Guild's Somerton gallery from the end of June and throughout July. At the end of which the judges, nationally acclaimed furniture maker Tom Kealy and Editor of *F&C*, Derek Jones, will decide on the winner according to design and quality of work. Visitors to the gallery, however, will be able to take an active part in selecting another prize, the popular choice.

As Chris explained: "Students bring their furniture in at the beginning and it's all set up in space allocated in the gallery and throughout the duration of the exhibition, the public visiting the gallery are invited to vote on any of the pieces that they favour. At the end of the exhibition, all the votes are counted up and one of the two prizes is given to the public's favourite. Quite separately from that during the course of the exhibition, the judges will arrive and do their completely independent assessment without any knowledge of how the public vote is going."

The furniture competition takes place against a backdrop of some uncertainty for the Guild as the present gallery and headquarters building is up for redevelopment. Rather than resting on this doubt they are purposefully seeking new premises. A number of alternative locations are being considered in Somerset and an announcement is expected shortly.

Building on success

Meanwhile the Somerset Guild is intending to build on its existing 120 members. Chris said: "What we're trying to do on the back of this furniture competition is introduce more furniture craftsmen into the Guild and the big wide world – giving them the competition as the first step on the ladder. We also want to grow as an organisation on the back of the furniture prize and there will be other similar exhibitions where we will seek to discover more new talent to grow the Guild."

The furniture exhibition will be held at the Gallery of the Somerset Guild of Craftsmen in Somerton Market Place, starting on Friday 26 June and will be open to the public for five weeks before closing on Friday 31 July, 2015. See www.somersetguild.co.uk.

Aljoud Lootah's origami furniture

These pieces are inspired by the art of paper folding – origami – and were created by Dubai-based designer Aljoud Lootah, using teak *(Tectona grandis)*, felt and polished copper and, despite their appearance as foldable structures, offer a high level of stability and sturdiness. The 'Oru' furniture collection, named after the Japanese word for 'gold', includes different practical objects, such as cabinets, chairs and lamps.

According to Aljoud, the idea for the collection stemmed from the geometric playfulness that accompanies the act of folding flat, two-dimensional surfaces, such as paper, in order to create beautiful 3D objects and forms. You can see more of this wonderful work here: www.aljoudlootah.com.



A selection of pieces from Aljoud Lootah's 'Oru' furniture collection

PHOTOGRAPH COURTESY OF HOUSENDO.COM

Japanese Joinery Masterclass

The Japanese Tool Group will run a four-day Masterclass in Japanese hip rafter joinery from 15–18 August, 2015, at Phoenix Building Conservation Workshops near Salisbury. The course will be of interest to anyone who enjoys using Japanese tools because the techniques taught are transferable between small-scale projects, such as cabinetry and large-scale projects, such as gates and tea houses. Mathieu Peeters will teach the course, who is the founder of Oostenwind. He received his training in traditional Japanese carpentry at East Wind Inc. in California and apprenticed under Len Brackett, East Wind's CEO and Ryosei Kaneko, a Japanese teahouse carpenter. He says: "As carpenters working in the Japanese tradition, we need to be able to make any type of woodwork since here in the West we cannot rely on a culture where plenty of wood craftsmen complement each other and can specialise in a single field, as they do in Japan. We must be able to build timber-frames but just as well tansu, shoji or interior finish carpentry."

Ten places are available on the course. You will need to bring a full set of tools ready for use. You will come away with a scale model of a traditional Japanese roof hip and a totally new appreciation of how to mark out, saw and chisel Japanese joints. Timber will be supplied as well as lunch and refreshments on each day. The Japanese Tool Group will be running a few practice sessions and tool-tuning workshops prior to the course at a notional cost to prospective participants.

The cost of the course is £300, requires a deposit of £100 and the balance must be paid three weeks prior to the course start date. For more information, contact Andy Ryalls – andyryalls@gmail.com – or Michael Huntley – michael@hsow.co.uk or see www.hsow.co.uk/japanese-tool-group.

Kevin Stamper's Chinese odyssey

Kevin Stamper recently appeared at 'Design Shanghai'. His work is beautifully decorative but uses the latest technology to create distinctive designs that make his work truly 21st-century design. He showcased brand-new work that develops his unique style while still retaining his trademark bright colour palette.

Kevin begins with a watercolour sketch of an inspirational view and the sketch is then digitised before being reduced to a very low resolution to form the decorative element incorporated into the overall furniture design. Each square on the pattern is matched in colour and tone with a hand-cut and stained piece of sycamore veneer and all of the squares are accurately joined together to create a representation of the original sketch. There can be up to 10 different colours each with 10 graduations of tone on a set of doors. He is currently working on a commission for the furniture in a Michelin starred restaurant.

For more information, see www.kevinstamperfurniture.com.



Kevin Stamper's 'Morning Storm' sideboard

PHOTOGRAPH BY KEVIN STAMPER

TIMBER TRADE NEWS
Anthracnose



PHOTOGRAPH COURTESY OF WWW.MISSOURIBOTANICALGARDEN.ORG

Anthracnose on red maple

Anthracnose is the name given to a type of leaf and twig blight, caused by several different pathogenic fungi on a wide range of plants. Cucumbers, beans, grapes and several trees are particularly affected. Dogwood (*Cornus spp.*) and weeping willow (*Salix babylonica*) are often attacked and one of the most frequently encountered examples is anthracnose of London Plane (*Platanus occidentalis*), *P. x acerifolia* and *P. x hispanica* are all names used by different authors; the last is favoured by the Royal Horticultural Society caused by the fungus *Apiognomonia veneta*. Other Platanus species are less seriously affected. The symptoms appear on leaves and young shoots. In spring, young shoots wilt and die, as if frosted. In early summer, leaves fall and the tree may be almost completely defoliated. The symptoms resemble road salt damage, but do not occur at times when salt is likely to be present. When the fungus attacks the leaves in early summer, the leaves are tougher than in the spring and the fungus spreads first along the main veins, before causing the leaf to drop. Spores are produced on infected twigs and dispersed by rain. The defoliation may appear very serious, but trees soon recover and control measures are not required. Effect on timber quality is not recorded, but is unlikely to be noticeable.

Chris Prior



PHOTOGRAPH COURTESY OF EXTENSION.OREGONSTATE.EDU

Beech anthracnose

Collaboration to create unique wooden food delivery experience for Wallpaper* Handmade 2015



Overview of the 3.7m high Rotunda Serotina

The American Hardwood Export Council (AHEC) partnered with designers Kolman Boye and furniture makers Benchmark to showcase a towering structure of food plates in a commission for Wallpaper* Handmade 2015, called the Rotunda Serotina. The Danish/Swedish architects Kolman Boye were invited by Wallpaper* to design a candy store concept for doling out free savoury biscuits from local bistro T'a Milano. The Rotunda is constructed entirely of American cherry *(Prunus serotina)*. Sharing Kolman Boye's respect and enthusiasm for traditional Japanese joinery techniques, Benchmark used square peg joints, cutting hundreds of square holes, not easy, but a strong component of Japanese joinery. "In total, we made 3,084 separate pieces connected by 1,008 joints to make up the 'skeleton' of the Rotunda together with 528 trays for the surface layer, all assembled without the use of nails, screws or glue. "It is a wonderful piece of cabinetmaking and a tribute to the skills of our craftsmen who have used their fine techniques on such a grand scale," explains Sean Sutcliffe of Benchmark.



Member of the staff serving parmesan biscuits during the Wallpaper* Handmade exhibition

The vast columns of shelves were arranged in a cylindrical shape so that a single ladder could slide around inside the structure to scale every shelf. Each shelf in the Rotunda held rows of cherry wood snack trays that visitors could take home as limited edition samples from the exhibit. All 526 trays were snapped up by enthusiastic visitors in under three hours. Cherry's sustainability means it will likely always be available to bespoke and industrial furniture makers. Designers on AHEC projects talk about its durability and pliability – it turns well on a lathe and steam-bends with ease. To find out more, see www.rotundaserotina.info.

PR Industrial's Toolshow 2015

Toolshow 2015 is once again building on the massive success of previous events and aims to be the largest toolshow in the country. Held at the American Express Community Stadium near Brighton from 25–26 July, once again, you can expect to enjoy free parking, free entry, a wide range of free demos, the best show deals and pitch-side masterclasses. All the biggest names in the woodworking industry will be present, waiting to show you their new products, answer any questions and offer you some fantastic deals on products. The event organisers are periodically releasing updates on masterclasses and any new exhibitors who have joined, so be sure to sign up so you don't miss a thing!

This is an event not to be missed, so visit the website – www.toolshow2015.co.uk – today and find out more about what's in store for 2015.



PHOTOGRAPHS COURTESY OF GIOVANNI NARDI PHOTOGRAPHY

Detail of the Japanese joinery used across the Rotunda Serotina

Handmade at Kew – the international contemporary craft event

Handmade in Britain is delighted to announce their collaboration with Royal Botanic Gardens, Kew for the launch of Handmade at Kew, a new international consumer event for contemporary crafts, which will take place from 8–11 October, 2015 at the prestigious UNESCO world heritage site, Kew Gardens.

The launch of this event offers an exciting and unique alternative to the high street in a luxury shopping experience with added value. The show is a special chance to buy directly from individual makers and galleries in an inspiring location and discover the stories behind the work of talented craftspeople. Over 150 designer-makers will showcase work across all disciplines including: ceramics, jewellery, fashion and textiles, glass, paper, furniture, metalwork, sculpture and interior accessories. The show is an opportunity to shop for high quality, handcrafted products with provenance and covetable, original objects, which reflect tradition, heritage and integrity.

For more information, see www.handmadeinbritain.co.uk.



PHOTOGRAPH COURTESY OF WIKIPEDIA COMMONS

Kew Gardens, the site for this exciting new event

Events


PHOTOGRAPH COURTESY OF DMI-TOOLS.CO.UK

Demonstrating the Record Power BS250 bandsaw

Record Power spring & summer shows

During the next few months, Record Power will be appearing at various dealers' premises across the UK and Ireland to answer your questions and demonstrate products from their extensive range. At many of the events, exclusive show deals will be also be available on the day.

When: 13 June 2015
Where: Joe McKenna Ltd, 54-56 Parnell Street, Limerick, Ireland
Web: www.joemckenna.ie

When: 24 June, 2015
Where: RS Paskin, Oldington Trading Estate, Stourport Road, Kidderminster, Worcestershire DY11 7QP
Web: www.rspaskin.co.uk

When: 24 June, 2015
Where: DJ Evans, St Botolphs Lane, Bury St Edmunds, Suffolk IP33 2AU
Web: www.djevans.co.uk

Woodfest 2015

This interactive festival, which takes place in Caerwys, North Wales, is full of exciting things to do for all the family. Step back in time and see craftsmen and women carrying out traditional crafts and skills, creating beautiful, fascinating and functional art, sculptures, objects, buildings and more and watch the latest high-tech forest equipment demonstrated by working professionals.

Woodfest has seven different event arenas with exhilarating displays along with over 150 outside trade stands and demonstrations as well as six main marquees full of interesting and unique goods produced in the UK.

Woodfest is famous for its competitive axe racing, sawing and tree climbing events. Expect to see visiting axemen from all over the world taking part in competitive woodchopping, crosscut sawing, sawing, tree climbing and chainsaw skills. This original extreme sport attracts the world's top lumberjack athletes in competitions based on historic logging techniques. Athletes compete in a variety of disciplines based on traditional logging skills to determine the best in individual disciplines and all round lumberjack.

If you choose, you can camp at the event or take a caravan. Ticket and further event details can be found by visiting the website – see details below.

When: 26–28 June, 2015
Where: Caerwys, North Wales CH7 5BP
Web: www.woodfestwales.co.uk


PHOTOGRAPH COURTESY OF WWW.KENTRWA.CO.UK

A chainsaw carver at last year's event


PHOTOGRAPH COURTESY OF WWW.ONEFURNITURE.COM

Some of the sights from the 2007 Manchester Furniture Show

The Manchester Furniture Show

Described as the furniture and furnishing industry's favourite summer show, this event is designed with the needs of the furniture industry at its heart. In 2015, the halls will be filled with a vast collection of established and new exhibitors, offering inspiring ranges of dining, living and bedroom furniture as well as home accessories.

This important trade show brings key retail buyers and suppliers together, at the time and place that they want to do business for the autumn season, and in a relaxed and convivial atmosphere.

When: 19–21 July, 2015
Where: Manchester Central Convention Complex, Windmill Street, Manchester M2 3GX
Web: www.manchesterfurnitureshow.com


PHOTOGRAPH COURTESY OF WWW.YOUTUBE.COM

Visitors enjoying the Annual Open Day at Peter Sefton's Furniture School

Peter Sefton Furniture School's Annual Open Day

This event will be taking place again this year at The Threshing Barn from 10am-4pm. You can meet the expert tutors, see professional demonstrations and pick up advice, tools and products along with a stunning furniture exhibition of the pieces designed and made on the Professional Long course, at the students' end of year show.

When: 18 July, 2015
Where: The Threshing Barn, Welland Road, Upton Upon Severn, Worcester, Worcestershire WR8 0SN
Web: www.peterseftonfurnitureschool.com

DMU Art & Design Degree Show 2015

Celebrating the talent and innovative work of their final year students, De Montford University, Leicester, will be holding this exhibition to showcase exciting creations by the next generation of artists and designers across their art and design courses. This exhibition attracts over 4,000 visitors including potential employers. The event will also feature the work of Furniture Design BA (Hons) as well as Product and Furniture Design BA (Hons) students. Be sure to save the date.

When: 12–18 June, 2015
Where: De Montfort University, The Gateway, Leicester LE1 9BH
Web: www.dmu.ac.uk/degree-show


PHOTOGRAPH COURTESY OF THEDESIGNHUB.FILES.WORDPRESS.COM

A piece from DeMontford University's Degree Show 2013

F&C UK

An open invitation for furniture makers to let us know what you're up to...

■ CHIPPENDALE INTERNATIONAL SCHOOL OF FURNITURE

'Blown Away Chair' reinvented by American furniture student

It was an advertisement that became an icon of pop culture, transforming a humble audio tape from Japanese electronics company Maxell into a global phenomenon. To a theme of Wagner's 'Ride of the Valkyries', a reclining man in a Le Corbusier chair is seen being blown backwards by the power of sound coming from speakers in front of him. In the advertisement, entitled 'Blown Away Guy', his hair, necktie and dry martini are all buffeted backwards by the volume of sound. Now, an American woodworker studying at the renowned Chippendale International School of Furniture in Scotland has recreated the famous chair in spalted cherry *(Prunus serotina)* for a new generation who may only dimly know what an audio cassette tape looks like. He's also recreated the advertisement.

The reinvented chair, finished with linseed oil and carefully polished, was designed and made in three months by Isaac Thompson, aged 24, from Orange County, California, who is a sculpture graduate of Bates College, Maine. "The chair's design was inspired by the exaggerated lines and movement of the Maxell advertisement. I liked the idea of sliding into the chair, reaching for my martini, pressing play and listening to my favourite music," he says.



PHOTOGRAPHS COURTESY OF ISAAC THOMPSON

The reinvented 'Blown Away Chair'

The Chippendale International School of Furniture was founded in 1985 and is this year celebrating its 30th birthday with a major UK Best Business Award. Each year, it takes in a small number of students of all ages from around the world for a range of short courses or a 30-week professional course. "I came across the Chippendale School while I was working for a sculptor in Brooklyn, New York," said Isaac. For as long as I can remember, I have been surrounded by creative minds. My grandmother was an artist, both my grandfathers were woodworkers in middle America, so I felt an inherent pull towards furniture and design. The Chippendale School was the perfect combination of artistic freedom and practicality for me."

To see the video for yourself, see www.youtube.com/watch?v=utu90kBxrKk.

■ BUCKS NEW UNIVERSITY

Successful graduate returns to mentor students

A Buckinghamshire New University MA Furniture graduate who has forged a career as a freelance designer has returned to the University as a volunteer lecturer and mentor to help shape the next generation of designers. Alys Bryan graduated in MA Furniture Design in 2007 having previously studied BA (Hons) Furniture: Contemporary Design at Bucks New University.

Alys has returned to tutor students on the MA Art and Design Practice: Furniture Design course, focused on helping them build the skills required by employers to work successfully in the UK furniture design industry. She previously visited the University to give presentations to students about progressing in their careers.

Her experience has taught her that without creative design, which accurately addresses all manufacturing considerations, resulting in unique, cost effective and environmentally sound furniture, it can be impossible to compete against imported products. She said many UK manufacturers are excelling at this, they recognise the importance of working with a designer and that this relationship is why the UK is recognised as a world leader in the manufacture of high quality furniture. Alys said: "Original design is vital to the furniture industry in the UK and in order to achieve this, designers must have a thorough knowledge of the manufacturing processes. Design education must continue to support this collaboration in order for both design and manufacture to be sustained. I hope that my experience can assist in creating the next generation of successful designers."



PHOTOGRAPH COURTESY OF BUCKS NEW UNIVERSITY

Alys Bryan is returning to Bucks New University to voluntarily lecture MA Art and Design Practice: Furniture Design students for free

■ RYCOTEWOOD FURNITURE CENTRE

Rycotewood Furniture Centre students gain industry insights



PHOTOGRAPHS COURTESY OF THE WORSHIPFUL COMPANY OF FURNITURE MAKERS

Students get hands-on during the tour



Furniture taking shape in the factory

Two FdA Furniture Design and Make students from City of Oxford College recently gained industry insights by visiting businesses in the North West of England. Terry Davies and Oscar Winter from the Rycotewood Furniture Centre, part of the National School of Furniture, attended a three-day student industrial tour organised by the Worshipful Company of Furniture Makers. Places are offered to colleges and universities that teach furniture-making programmes.

By visiting businesses which deal with material, design, manufacturing and retail activities, the students got to see a side of the industry they wouldn't usually be exposed to and were able to network with fellow furniture-making students.

This year, over 30 students in total studying a range of furniture-related subjects, gathered together from across the country for this three-day tour and many of them wrote about their experiences by keeping journals, reports and making videos, as did Terry Davies, which can be seen on the Worshipful Company of Furniture Makers' website: www.furnituremakers.org.uk, or to find out more about the Rycotewood Furniture Centre, see www.ocvc.ac.uk/rycotewood-furniture-centre.

■ THE WINSTON CHURCHILL MEMORIAL TRUST

Prestigious Churchill Travelling Fellowships awarded to crafters

To mark its 50th anniversary, The Winston Churchill Memorial Trust has awarded Travelling Fellowships to two people working in the woodworking crafts, in order to bring back the benefit and positive change to their profession and community here in the UK.

This is part of a partnership with The Worshipful Company of Carpenters to jointly fund several Fellowships annually in the Crafts and Makers category and the collaboration will promote and encourage woodworking crafts, such as joinery, cabinet and furniture making.

The Worshipful Company of Carpenters is committed to supporting those working in the profession through scholarships, competitions and the Building Crafts College and maintains close links with the carpentry profession and other building trades.

This year's award winners are

• **George Cunningham** – a furniture designer and maker from Lambeth, who will be travelling to Denmark and the USA to investigate traditional and modern chair-making techniques.

• **Hugh Miller** – a furniture designer and maker from Liverpool, who will be travelling to Japan to explore the traditions and techniques of Japanese cabinetry.

To find out more about fellowships, see www.wcmt.org.uk.



PHOTOGRAPH BY PHILLIP GREGSON

A wheel from a wheeled fire escape for the Merseyside Fire and Rescue museum, by Phillip Gregson

If you're a member of a collective and would like to raise your profile then submit a story to teganf@thegmcgroup.com

Editor's round-up...



PHOTOGRAPH BY GMC/DEREK JONES

Having trouble sourcing the right tool for the job? Derek Jones sets about identifying the essential tools and equipment on offer this month

All sterling prices include VAT, correct at time of going to press

Through various editorials last month, I alluded to a rising interest in green woodworking and, as a result, I had a few emails confirming just that. It would appear then that this activity is perhaps the gateway drug for a lot of woodworkers, especially the outdoors type. Imagine if you could take your bench and tools out into the woods for a day's work, in the sunshine – wouldn't that be bliss? Not every day obviously, just when the fancy and weather permits.

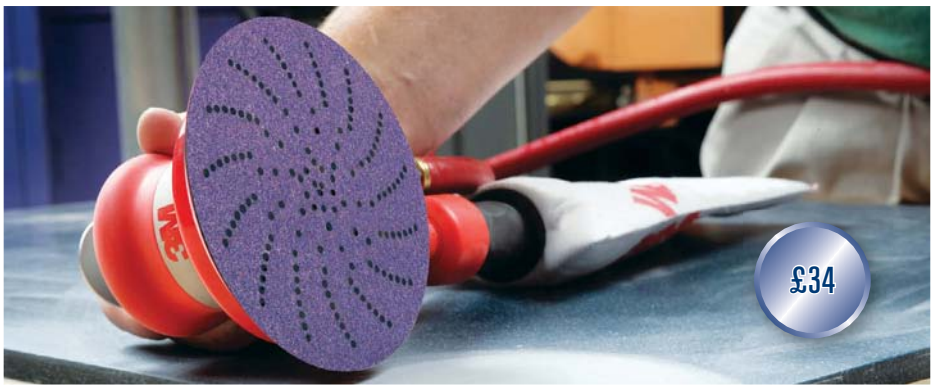
In contrast, most of the tools we're featuring this month wouldn't be of much use and therein lies the problem: most of my 'shop equipment is not transferable to woodworking outside. On site, yes, but not outside. So while we take a couple of weeks to track down some tools that will cross the divide, let's consider what has made its way to the *F&C* bench this month. 'Handraulics', as I've heard them called, are indispensable in any hand tool workshop, whether it's a screwdriver, or in this instance, a two speed eggbeater breast drill. I came by this one last year with the intention of restoring it to something like its former glory. Before that happened, however, it got used a few times and from there on there really didn't seem much point. It works fine just the way it is. A few other examples have been added to the list since then but have not fared quite so well. If anyone has a hotline to a good source of small chuck springs, I'd be very grateful.

3M Cubitron Clean Sanding Film Disc

3M has integrated its innovative Precision Shaped Grain – PSG – technology into a brand-new sanding disc, which can last up to six times longer than conventional A/0 80 grit, according to the Abrasive Systems Division. In six-minute removal tests carried out by 3M, the new Cubitron II sanding disc has also been shown to remove twice as much material as conventional A/0 80 grit.

These new sanding discs are an addition to the Hookit range of abrasive discs by 3M and the grades range from 80+ to 120+ and can be used on a variety of surfaces, including wood, paint, metal and composites.

PSG is an innovative technology that is designed to cut faster and last longer than traditional abrasives. As the triangular shaped grain abrades, it continually fractures to form sharp points that slice through the substrate and wear evenly. Conventional grains are irregularly shaped, which means they 'plough' through metal and cause a build-up of heat, resulting in a slower cutting rate. This can also directly affect product durability, potentially resulting in shorter life.



Axminster Tradesman Kit Bag

If you're looking for a bag specifically designed to provide secure storage for those items most frequently used on a daily basis, this kit bag offers the complete solution.

This robust holdall has the capacity to hold a wide range of tools and accessories. The design is such that there is enough room for a power drill and its battery together with a selection of useful drill bits, drivers, screws plus additional tools and other assorted hardware.

Provision has been made in the interior so that the contents can be organised in various pockets and, in addition, there are two large outside pockets. There is also a 12-piece tool roll, some elasticated straps and two zipped document pockets, one of which is a transparent wallet.

The bag is constructed around a rigid core, covered by a heavy-duty, double stitched nylon outer with a pair of zipped covers. These zipped covers give uncluttered access to the interior, so that the contents can be quickly and easily accessed.

It features a chrome plated steel carrying tote with a rubber grip. A pair of strong 'D' rings are sewn and riveted onto the outside to secure a shoulder strap. A very thick rubber base has been permanently bonded to the underneath of the bag to resist everyday wear and tear.

The Axminster Tradesman Kit Bag can be purchased on its own or as a great package with 103 accessory bits. These include drills, bits, bit holders and cutters from the Fisch, Axcaliber and new Axminster Trade Bitz ranges – all double grooved and compatible with all makes of power tool, meaning there is very little by way of drilling and fixing that cannot be achieved. Please note that this price is valid until 31 December, 2015.



Makita DMR106 job site radio

Makita's new DMR106 job site radio bristles with high quality sound production features and includes many technical features usually only found in high performance domestic sound systems. The latest models feature high impact resistant elastomer corner bumpers and steel facia protection bars to safeguard the radio, even in 1m falls. With an IP64 protection rating against dust and water ingress these new radios will live on site safely. The DMR106 job site radio weighs just 4.2kg and has a rugged, hinged top carry handle.

The new radios can be powered by any of the Makita Li-ion LXT batteries from 7.2V up to the popular 18V batteries, or by mains through the AC adaptor jack on the side of the radio. Bigger 89mm diameter speakers are fitted to both sides of the radio for a powerful 25W maximum output.

Equipped with two-star Bluetooth connectivity, a mobile device is wirelessly connected to play your choice of music and has a Bluetooth range of 10 metres. A retractable aerial gives access to AM and FM radio and the rotary digital tuner and pre-set buttons are clear on the front fascia of the radio. An auxiliary IN jack is provided as is a USB port, which enables a mobile device to be charged from either the operating batteries or through mains power. Available in either traditional Makita blue or you can choose the DMR106B version in stylish black.



Leigh RTJ400 jig

Leigh's new RTJ400 jig is designed specifically for router table use, offering fast, accurate routing of through dovetails, box joints and half-blind dovetails on your router table. The Leigh template is precision CNC machined from aircraft grade aluminium for perfect joinery every time.

The RTJ400 will make nine sizes of through dovetails, three sizes of half-blind dovetails and four sizes of box joints. Setup is fast and simple with five instruction strips that guide you through setup and are located on the top of the jig giving you all the setup positions you will need.

A perfect joint fit is guaranteed and repeatable with the patented Leigh e10 guidebushing with elliptical barrel that can be rotated for joint fit. Board alignment is achieved using the adjustable side stop with an offset for rebated half-blind dovetails. The precision template and clamping frame can be aligned perfectly with clearly marked pin locators that are etched into the template.

The jig is supplied with quick user guide DVD, five instruction strips that sit on the jig, blanking plates, stop rod, depth gauge, 12mm shank dovetail bits: 80-500, 120-500, straight bits 160 and 143-500, four cam speed clamps, hex key and adjustable side stop.

For anyone wishing to see a demonstration of the new jig, please contact any of the Axminster stores. In addition, there is the opportunity for customers to have their routers set up for free when they purchase an RTJ400 jig. Please note that this price is valid until 31 December, 2015.



Axiom AutoRoute CNC machines

Rockler Woodworking and Hardware has expanded its selection of CNC machines, adding four new AutoRoute models manufactured by Axiom Precision. These premium CNC machines are ideal for users looking to upgrade from an entry-level machine or those entering the field who immediately require top-quality precision. They are ideal for a wide range of projects, including signs, image reproduction, luthiery and parts fabrication. They feature liquid-cooled motors that are designed for quiet operation and a long life of high-level machining and the universal router mount accepts a wide variety of common woodworking routers, as well as variable speed operation up to 24,000rpm plus a 200ipm maximum feed rate.

Rockler will carry four AutoRoute models: 4 Basic, 4 Pro, 6, and 8 Pro, which feature different working area capacities, ranging from the 610 × 610mm AutoRoute 4 Basic to the 610 × 1,220mm AutoRoute 8 Pro. Each Axiom AutoRoute features precision ball screws, rigid steel frames and interlocking aluminium tables, which are compatible with T-track accessories. In addition, integrated MDF spoil boards promise exacting precision, as they can be milled flat for true perpendicularity with the spindle. The machines require operating software and drivers, which are sold separately. An onboard USB port allows users to input their operating programmes with a flash drive, which means the CNC doesn't need to be tethered to a computer.



From £2,700



£299

Trend Scribemaster

The Trend Scribemaster Pro skirting board scribing jig for use with a router is now available pre-assembled, ready to go and is quick and easy to set up and use. It is up to 10 times faster than manual scribes and you can rely on precise cuts every time. It cuts any skirting or dado profile and also scribes profiles into kitchen plinth. The Scribemaster cuts left- or right-hand and warped boards accurately and mounts quickly onto your mitre saw bench.

See Trend's YouTube channel and Facebook group for videos of the Scribemaster Pro in action.

Clarke CBS16 drill bit sharpener

This drill bit sharpener, available from Machine Mart, gives blunt drill bits a razor-sharp cutting edge. Quick and easy to use, the built-in drill bit guide ensures sharpening at the correct angle. Suitable for 3-10mm HSS drill bits, one at a time, with a voltage of 230V and a wattage of 70W. The speed is 1,600rpm and includes a replacement grinding stone.



£26.39



From £15

IRWIN Marples Woodworking Series saw blades

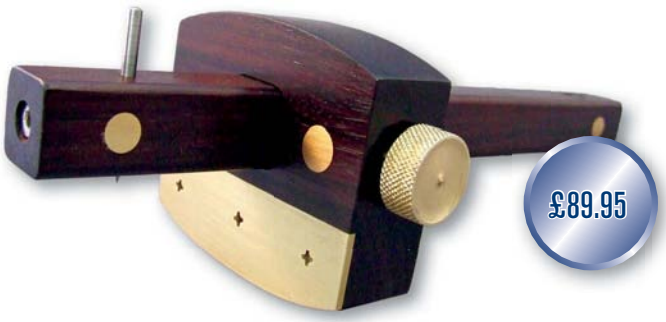
This new category of stationary blades has been designed with woodworkers in mind and boasts a longer life, flawless finish and ultimate precision thanks to brazed teeth and laser cut design. The teeth on the Marples blades are made from hardwearing carbide, which ensures they stay sharper for longer and allow for multiple resharpening. The blade is also coated with friction coating that provides a smoother cut, helps to reduce jamming and increases the blade's lifespan. The coating reduces friction and works effectively with wet or resinous timbers, or when cutting rough timber, softwood, chipboard or MDF. Non-heat conducting aluminium flakes within the coating also help to lower the temperature of the blade.

To find the perfect blade for your machine, with the correct arbor and diameter sizes, check out the Irwin Circular Saw Blade Selector – www.circularsawbladeselector.irwin.eu.

Superior Marking Gauge by Philly Planes

Available from Classic Hand Tools, this traditional style marking gauge is produced in the UK by Philly Planes. It's made from rosewood *(Dalbergia retusa)* and zebrano *(Microberlinia brazzavillensis)*, brass and high carbon steel and features a unique locking mechanism that allows easy and accurate adjustment. Featuring three types of stylus, this is the only marking gauge you will ever need: a pin for general layout work, a knife for cross grain and veneer work and a pencil for marking out without leaving a deep indentation.

Easy to adjust, it locks securely without damaging the shaft. There is no separate foot to lose should you decide to disassemble the gauge for cleaning. It has a definite heft in the hand and is a pleasure to use.



£89.95

Bosch 36V rotary hammer drills



Bosch has just launched the new GBH 36 V-LI Plus Professional and the GBH 36 VF-LI Plus Professional hammer drills. You can choose between the model with fixed chuck (V) and the model with changeable chuck (VF). Both rotary hammers improve on their predecessors by providing more power, a longer lifetime, new convenience features, vibration damping and longer battery runtimes.

The new tools feature a 3.2-joule hammer mechanism and robust motor, which offer high drilling and chiselling performance. The four-brush motor provides a longer lifetime than the previous two-brush version. It also cools better due to the optimised geometry of the ventilation slots, doubling the lifetime compared to predecessor models. The motor is more powerful and design more compact thanks to the use of a constant magnetic field. This optimisation of power to size ratio means, including the battery, the GBH 36 V-LI Plus Professional and GBH 36 VF-LI Plus Professional weigh only 4.5 and 4.6kg respectively.

Both new rotary hammers deliver more comfortable and controlled use by utilising Bosch electronic innovations. With Electronic Rotation Control – ERC – a sensor detects sudden jamming during work and immediately shuts down the motor in order to protect the user's wrist. Electronic Precision Control – EPC – makes it easier to work on delicate materials precisely. When activated, the power is limited to 70% with slower build-up. As a result, even soft materials, such as tiles, can be worked on in impact mode, saving time and allowing precise results quickly and easily. These tools also have efficient vibration damping. A damping element decouples the main handle from the hammer drive to reduce vibration exposure for the user by 25% compared to the previous model.

These new rotary hammers are designed for a broad range of simple to complex tasks, from small drilling applications in tiles or masonry to more extensive chiselling applications. Even when drilling with core cutters up to 82mm to install junction boxes, the high single impact energy combined with the longer battery runtime ensures a fast drilling rate.

Other benefits include a 35 minute charging time, thanks to the supplied GAL 3680 CV Professional quick charger and tried-and-tested Bosch features, including an LED light to provide good illumination, optimised tool shape to save the user's strength, comfortable softgrip and a better balance due to their L-shaped design.

Rosewood miniature mitre plane



Handmade by Oliver Sparks and made in very old Rio rosewood and carbon steel, this fine small mitre plane features a shellac finish. The tapered mouth closer is designed to control the mouth opening after repeated sole truing. Traditionally these planes are found in beech *(Fagus spp.)* with boxwood *(Buxus sempervirens)* mouth closers and are considered a rare find in the wild. The plane measures 101mm long × 31mm wide. It is made in iron, 22mm and snecked, with a bed angle of 19°. It is truly a thing of beauty. F&C

Contacts

3M Cubitron II brand Hookit Clean Sanding Film Disc 775L
Contact: 3M
Tel: 08706 080 090
Web: www.3m.co.uk/abrasives

Axiom AutoRoute CNC machines
Contact: Rockler Woodworking and Hardware
Tel: (001) 800 279 4441
Web: www.rockler.com

Axminster Tradesman Kit Bag
Contact: Axminster Tools & Machinery
Tel: 03332 406 406
Web: www.axminster.co.uk

Bosch 36V rotary hammer drills
Contact: Bosch
Tel: 03447 360 109
Web: www.bosch-pt.com

Clarke CBS16 drill bit sharpener
Contact: Machine Mart
Tel: 01158 406 235
Web: www.machinemart.co.uk

IRWIN Marples Woodworking Series saw blades
Contact: IRWIN
Tel: 0844 412 1190
Web: www.irwin.co.uk

Leigh RTJ400 jig
Contact: Axminster Tools & Machinery
Tel: 03332 406 406
Web: www.axminster.co.uk

Makita DMR106 job site radio
Contact: Makita
Tel: 01908 211 678
Web: www.makitauk.com

Rosewood miniature mitre plane
Contact: Oliver Sparks
Email: maker@oliversparks.co.uk
Web: www.oliversparks.co.uk

Superior Marking Gauge by Philly Planes
Contact: Classic Hand Tools
Tel: 01473 784 983
Web: www.classichandtools.com

Trend Scribemaster
Contact: Trend
Tel: 01923 249 911
Web: www.trend-uk.com



'Seapod' the Peapod built by students as part of the 38 week course

Hands-on courses in boat building, furniture making and allied skills **full-time, 2 days to 38 weeks**

www.boatbuildingacademy.com

01297 445545

office@boatbuildingacademy.com



Makita®

1915-2015

LIMITED EDITION 100 YEAR ANNIVERSARY PRODUCTS

18v Anniversary BL Combi Drill
DHP481SP1R

5.0Ah Li-ion x1



MAK PAC COMES WITH A TYPE 2 MAKPAC STACKING CASES

BL MOTOR

18v Anniversary Combi Drill
DHP456SP1R

4.0Ah Li-ion x1



MAK PAC COMES WITH A TYPE 2 MAKPAC STACKING CASES

LIMITED EDITION METALLIC BLUE 18V LI-ION MACHINES

18v Anniversary BL 2 Piece Kit
DLX2040SPE

BL MOTOR 5.0Ah Li-ion x2

MAK PAC **COMES WITH 2x TYPE 3 MAKPAC STACKING CASES**

DC18RD Twin Port Charge Times
2x 3.0Ah (6Ah) 18v Li-ion in 22 minutes
2x 4.0Ah (8Ah) 18v Li-ion in 36 minutes
2x 5.0Ah (10Ah) 18v Li-ion in 45 minutes



Twin Port Charger
DC18RD



18v Impact Driver
DTD129SP

18v Combi Drill
DHP481SP

Makita Lithium-ion Range
Scan the QR code or visit www.makitauk.com

3 YEAR WARRANTY

Visit www.makitauk.com to register for your Makita 3 Year Warranty.
Terms and conditions apply.

Follow Makita UK



PHOTOGRAPHS BY OLIVER SPARKS, UNLESS OTHERWISE STATED

In the workshop with Oliver Sparks

We've all got an eye for a good tool but how many of us ever get round to making one? This cabinetmaker turned planemaker did precisely that and now the future is bright

Oliver's journey into woodworking began while he was in secondary school, after an 'old-school' teacher spotted his enthusiasm for woodworking. He helped guide Oliver along the right path and encouraged him to pursue his talent at Moulton College. It was here he completed a three-year City and Guilds course in cabinetmaking. A lot of students decide to bow out of education at this point but Oliver, it seems, was just getting into his stride. He went on to do a further three years at Buckinghamshire New University, culminating in a BA Hons degree in the same subject. Although focussing on cabinetmaking in his education, in college he also made a few hand planes, but it wasn't until he reached university that his toolmaking really took off. Having access to a full metalwork shop and knowledgable mentors, really opened his eyes to the possibilities. He told us: "Hand work has always been a love of mine."

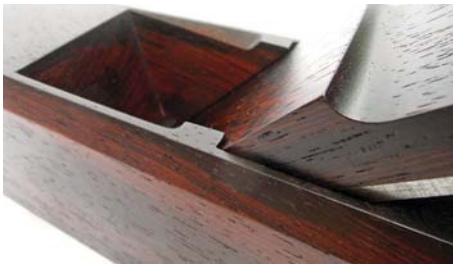
Oliver says he is addicted to the quiet, focused ways hand tools force you to adopt. Working this way gives him a deep understanding of what makes a tool sing, so inevitably, it wasn't long before he started to build more of his own tools, simple at first but gradually building up to examples of outstanding beauty and craftsmanship. The tools Oliver makes are of high quality, aimed at both collectors and users in the tradition of such makers as Norris, Spiers and Matthieson. Since graduating from university, Oliver has developed his own brand: Oliver Sparks, Maker – abbreviated to OS, M.

As a toolmaker, Oliver told us that he leans towards a contemporary style but with traditional methods of working. In this respect, he admits to being mostly self-taught when it comes to combining metal with wood. It was a long time before he felt ready to "go public" with his efforts, but the response was overwhelmingly positive, as he explains: "I got pretty lucky and secured some nice commissions from my first show and haven't looked back."

Ethos

When we met up with Oliver at a recent David Stanley antique tool auction he was meeting up with friend and customer Bill Carter. A plane maker such as Bill with a worldwide reputation is a great customer to have and their association will no doubt create interest among collectors around the world. Describing how he works, Oliver comments: "I take great pains to source the absolute best I can find – timber, metals, equipment, methods – and find harmony between them." He told us that he realised very early on that his heart lay with high-end pieces, where quality is of vital importance. Still building his company, Oliver resists the temptation to work on pieces that don't meet his exacting standards. Already this is what his clients expect of his work, but most importantly, it's exactly the type of work that makes him happy.

"Longevity of a piece is also very important," Oliver continues. "To me, quality and longevity work hand-in-hand. All my life I've been taught to 'buy quality and buy once'. It's a good ethos to live by and a pleasure to extend it to others through my work." Perceptive of Oliver's work, one of his clients has described what this maker does as 'fusion', a blending of the traditional with the contemporary, which we think is a pretty fair description.



Strike block plane in rosewood – single iron for trimming end grain on a shooting board



Moving fillister plane in beech, boxwood and brass



A phosphor bronze lever cap screw in the making, on Oliver's Warco lathe

Influences and inspirations

Oliver evaluates his work and the inspirations behind it, telling us: "In Victorian times, Britain was at the pinnacle of toolmaking. The planes in particular produced in that era were 'sublime' and I try to emulate the honest quality of workmanship in my tools." As he continues to explain: "The last 20 years have seen a huge revival of hand-tool woodworking. With the rise of the internet, knowledge and inspiration has never been more accessible." While at university, Oliver spent thousands of hours researching; naturally, he got pretty familiar with the work of Konrad Sauer, Bill Carter, Wayne Anderson, Karl Holtey, etc. It fascinates Oliver that by hand and eye, craftsmen can marry materials to create such beautiful objects that function so well. He says: "I also read a lot of blogs, despite being so awful at keeping one, by home woodworkers. They often have more time to explore remarkable methods that are, sadly, commercially not viable."



PHOTOGRAPH BY MOLLY KNOWLES

Spiers 12mm shoulder plane in bronze, steel and rosewood

Maker's maker – Bill Carter

Bill Carter is arguably the first of the 'new breed' of infill plane makers and in many ways – as a fellow cabinetmaker aptly put it – the 'godfather' of modern infill makers. Best known for recycling old brass-backed saws into plane bodies, in the last 32 years Bill has made over 1,000 planes using little or no power tools. A staggering achievement!

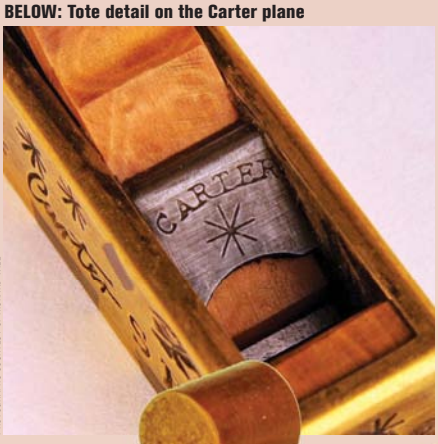
I first came across his work at college and became instantly hooked. You could say he is the reason I got into planemaking in the first place and certainly provided stepping stones through the articles on his website. His work manages to capture the essence of what it means to be handmade, which is a difficult and indefinable thing. The best thing about Bill, though, is he's a true gentleman. His knowledge is vast yet he doesn't hoard – quite the contrary in fact. He goes out of his way to share for the sake of others, even putting clients my way – something I consider a great honour. In the niche within a niche that is handmade toolmaking, you will struggle to find another craftsman who has given so much inspiration to others, or indeed find one who hasn't been influenced by Bill's work – it's humbling.



PHOTOGRAPH COURTESY OF DAVID BARRON

ABOVE: Little boxwood plane

BELOW: Tote detail on the Carter plane



PHOTOGRAPHS COURTESY OF RICHARD WILE



Richard Wile's first Carter hand plane

Design and making approach

Oliver will often spend months working an idea over in his head, examining the prospect from every side before even putting pen to paper. But once that pen starts, he tells us that it is a quick leap from there to the workshop.

When in the process of making something, Oliver much prefers the 'old-school' and traditional methods, as he explains: "All of the planes pictured in this article were made the old-fashioned way. The dovetails on my infill planes are a good example: all hand cut with a hacksaw and individually filed to fit, or my moving fillister, where the dovetailed boxing was hand cut using purpose built master-planes. Makers have been working this way for over 200 years and we need to carry this forward lest it be forgotten."

With the exception of heat treating, everything Oliver makes is done 'in house'. This way, he has control over every aspect of the build and, therefore, the quality of the finished product. It also has the benefit of helping to widen his skill set; a practice that would not be lost on the great planemakers of the past.

Recently, Oliver has started mechanising some processes to eliminate some of the grunt work. He's just invested in a milling machine, for example. He tells us: "Dimensioning metals entirely by hand gets boring really fast and it gives you more time to play with the detailing. It's also important to not be limited by what your machines can do."

In terms of discussing commissions, Oliver told us: "As anyone in the bespoke game knows, commissions can be difficult as each one is essentially a prototype, but I wouldn't change that for the world." He also tells us that he loves finding obscure forgotten tool designs and bringing them back to life, with an OS, M. slant, of course. A few parameters are standard for every tool: it must be comfortable to use, function perfectly, be the finest quality achievable and be beautiful. Proportions play a big part in this, both visually and ergonomically, with the exception of sourcing old exotic timber, this is the most challenging aspect of toolmaking.

Oliver looks to his favourite tool, which would be his first ever infill mitre. He mentions that it's a flawed design, with the sole being brass and much too thin, but he loves it all the same. This was the object that made him realise he could really make a go of planemaking.



A steel dovetailed shell ready for assembly. The model is Oliver's new 'slipper plane'

Oliver's new model of block plane, called the 'slipper plane'. It is the same model as the WIP shot but in phosphor bronze with a rosewood infill



KRUG champagne trolley

Cabinetmaking commissions

As well as his current work, we were also interested to learn about some of Oliver's previous cabinetry work. He starts by telling us about 'Embrace', a necklace display cabinet in Swiss steamed pear *(Pyrus communis)*. "This cabinet was the culmination of my university degree. From a design standpoint, it was inspired by the concept of a loving embrace, brought to life with organic lines. It's designed to hold a lady's necklace collection, to envelop them with something equally beautiful. Each necklace is moveable to any position the client desires via hidden steel strips along the top, corresponding with magnets imbedded within each hook." Oliver explains

that what makes this cabinet special from a maker's point of view is the coopered construction: the cabinet's section is ovular, meaning each 'stave' has a different taper to its neighbour and must be hand planed faultlessly. After assembly, he hand carved every contour and detail using gouges, scrapers and purpose-built planes. Hardware was always going to be a problem on something this unique, so Oliver made the hinges too – problem solved!

Going back to commissions Oliver has made on the furniture-making theme, he tells us about being given the opportunity to make a piece for blue chip client, KRUG Champagne. "When dealing with blue chip clients, quality is paramount. Planemaking is my moonlight fix, but my regular job is cabinetmaking for Noble Russell, where I made this KRUG champagne trolley from drawing to delivery," he comments. Designed to fit within an existing theme, the stained walnut *(Juglans spp.)* frame, fine leather, marble top and bespoke hardware all give a taste of luxury. This piece is intended for use alongside a diner's table; bottles are chilled up top and served from one of the 14 flutes held in acrylic alcoves below. Oliver tells us that he enjoyed the moulded leatherwork most on this job as it gave him a chance to expand his skill set.



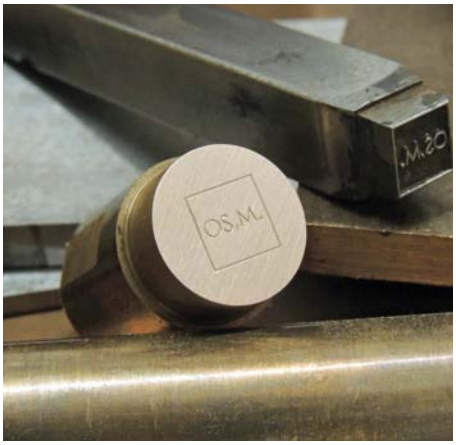
'Embrace' necklace display cabinet in Swiss steamed pear



The interior of 'Embrace' showing individual necklace hooks and detail



Hinge detail for 'Embrace' – handmade by Oliver



Oliver's maker's stamp

Future projects

At the moment, Oliver is working on a large skewed infill shoulder plane, in bronze and boxwood (*Buxus sempervirens*) for a client in Australia. "Shoulder planes are particularly tricky," he explains. "Minus the shapely top, every surface needs to be dead flat, square and parallel so it's an exercise in care. Lovely!"

After that comission is complete, Oliver will be developing some ideas and building several more planes to take to the European Woodworking Show in September, where he will be exhibiting. Since actively working towards becoming a full-time planemaker, he knows for sure this is where his heart lies. While this can be very demanding on his time, Oliver is fortunate enough to have employers who love his personal work and encourage it. Right now, things are looking promising: he has a workshop, orders on the books and big plans for the future and although he hasn't yet won any awards for his work at present, he did have the honour of demonstrating and exhibiting at the Queen's Diamond Jubilee garden party in 2012. With such an honour so early on in his career, bigger things are certainly on the way for this planemaker. F&C

Contact details

Email: maker@oliversparks.co.uk
Web: www.oliversparks.co.uk

scott+sargeant

the machinery experts

35000 ft² of new & used machinery on display

iTECH BS600 Bandsaw 400v 3 phase

£1620 inc VAT



The new BS600 bandsaw is an exciting new addition to the range. A professional quality bandsaw at a great price. The BS600 has cast iron wheels with electro-mechanical braking giving easy smooth cutting with safety.

Ideal for all type of wood, and composites, it can also take up to a 35mm blade for the occaisional rip cut. Electrically interlocked doors - exceptional value for money.

Technical Specification:

wheel diameter	600mm
throat	580mm
depth under guide	370mm
Blade width	10-35mm
motor power	2.2 kw 3.0 hp
table table size	700 x 608 mm
table tilts	0-20 degrees
blade length	4470 mm
dust outlet	100mm
Shipping	230x860x2080mm

iTECH C300 Universal Woodworker 220v 1 phase

£4194 inc VAT



The new C300 Universal Machine is the latest addition to the iTECH family. It has been specifically designed for the small professional workshop or home user. This industrially rated machine features a table saw and sliding table, planer, thicknesser and spindle moulder unit. The cast iron construction, accurate cross cut fence and superb build quality put this machine in a class of its own.

Features:

Panel saw sliding beam
Scoring saw for veneered boards
Accurate cross cut fence with flipstops
Cast iron tables
Sturdy swinging arm squaring frame
3 x 2.0 hp class 1 motors

Technical specification:

PLANER:	
Max planing capacity:	300 x 220mm
Length of tables:	1500mm
Cutter Block Dia :	70mm
Fence angle tilt:	90° 45°
No of knives:	3 300x20x3
Max Stock removal	4 mm
Feed rate:	7 m/min
CIRCULAR SAW:	
Blade tilt:	0° - 45°
Blade diameter:	250mm
Scoring Blade	90 mm
Max blade height 90°:	80mm
Sliding carriage:	1250 x 315 mm
SPINDLE MOULDER:	
Shaft Stroke	115 mm
Shaft Dia	30 mm
Speeds	2000/3100/4400/7000 rpm
Max dia of tool	160mm

iTECH DC001S Dust Extractor

£286 inc VAT



iTECH DC001S 1 Bag Dust Extractor is a ruggedly extractor is designed for small workshops. The industrial construction and quality finish sets it apart from others.

It is big enough to handle a 310mm planer or many other workshop machines. The cyclone s filtration system works by separating the waste from the airflow, diverting the waste into the collecting bag. The base is fitted with castors for mobility around the workshop. The 125 mm inlet is fitted with a twin branch 100mm adaptor, allowing connection to either one or two machines. Supplied complete with 1x 3m hose.

Technical Specification:

Fan diameter	300mm
Inlet diameter	125
Inlet holes	2 x 100mm
Air capacity	1490cfm
Bag diameter	500mm
Packing size	920x580x580cm
Motor power	2hp
voltage	240v

iTECH W0501 Oscillating Edge Sander

£1199 inc VAT



The iTECH 501 Oscillating Edge Sander can be used in for getting a superb edge finish. the oscillation reduces marks and scratches free and helps to prolong belt life. The cast iron table combines with a simple rise and fall handle plus an angle adjustment allowing you to use the full area of sanding paper. Mitre fence and slot also included.

A rubber coated drive drum provides positive grip and maximum power transfer. The belt tensioning and tracking operations are a simple and quick process. The sturdy cabinet base includes a storage area for abrasives. The auxiliary table with sanding drum for internal or external shaped work

Technical Specification:

Motor power	2hp
Belt dimensions	2473 x 152mm
Belt speed	1033m/min
Main table dimensions	905 x 305mm
Auxiliary table dimensions	290 x 259mm
Platen tilting	0 - 90 degrees

... THE LARGEST SHOWROOM OF PROFESSIONAL WOODWORKING MACHINERY IN THE SOUTH



Scott & Sargeant has the largest showroom of new & used machines, spare parts & accessories. Our showroom is packed with machinery, tooling, spares and accessories for the small workshop up to the largest manufacturer.



SEDGWICK WOODWORKING MACHINERY
centauro
ITALPRESSE
Mini Max
scm
whitehill
OMAS
MARTIN
STROMAB

scott+sargeant
Blatchford Rd, Horsham
Sussex RH13 5QR
Order Online
sales@scosarg.co.uk
F 01 403 274444
T 01 403 273000

scosarg.co.uk

The Scandinavian workbench, made easy!

David Barron customises this traditional design to make a simple and robust bench

With all the recent publicity on the Roubo style of workbench, the Scandinavian bench with its shoulder vice has taken a bit of a back seat. However, this bench has a great deal to recommend it, particularly if you cut lots of dovetails. The shoulder vice clamps boards firmly in the centre so there is no wracking and the absence of any screw or guide bars means you can clamp right down to the floor with no obstruction. So why has this bench fallen out of favour and why are there no manufacturers making this style? Simple, it is both complex and expensive to make with its large dovetails and intricate tail vice. However, it doesn't need to be that way and I'd like to show you a simple, robust and quick way to build one.

Improving the design

I worked on one of these traditional Scandinavian benches for four years and while the bench was 10 times better than my old bench with its Record vices, there were some areas that niggled me and I felt could be improved upon. First, the shoulder vice was too big for me and the protrusion not only took up valuable workshop space but also kept me too far from my work. Second, the faceplate wasn't attached to the screw so it needed to be manually adjusted, which detracted from its convenience. Third, the fifth leg necessary to support the large vice got in the way, particularly if you like to sit down at the bench, as I do. Fourth, the support frame wasn't flush with the front of the top so clamping versatility for longer boards was reduced, and finally, the bench was only 865mm high, which is far too low for me. So as well as greatly simplifying the build I also planned to deal with each of these issues to make the bench suit my style of work.

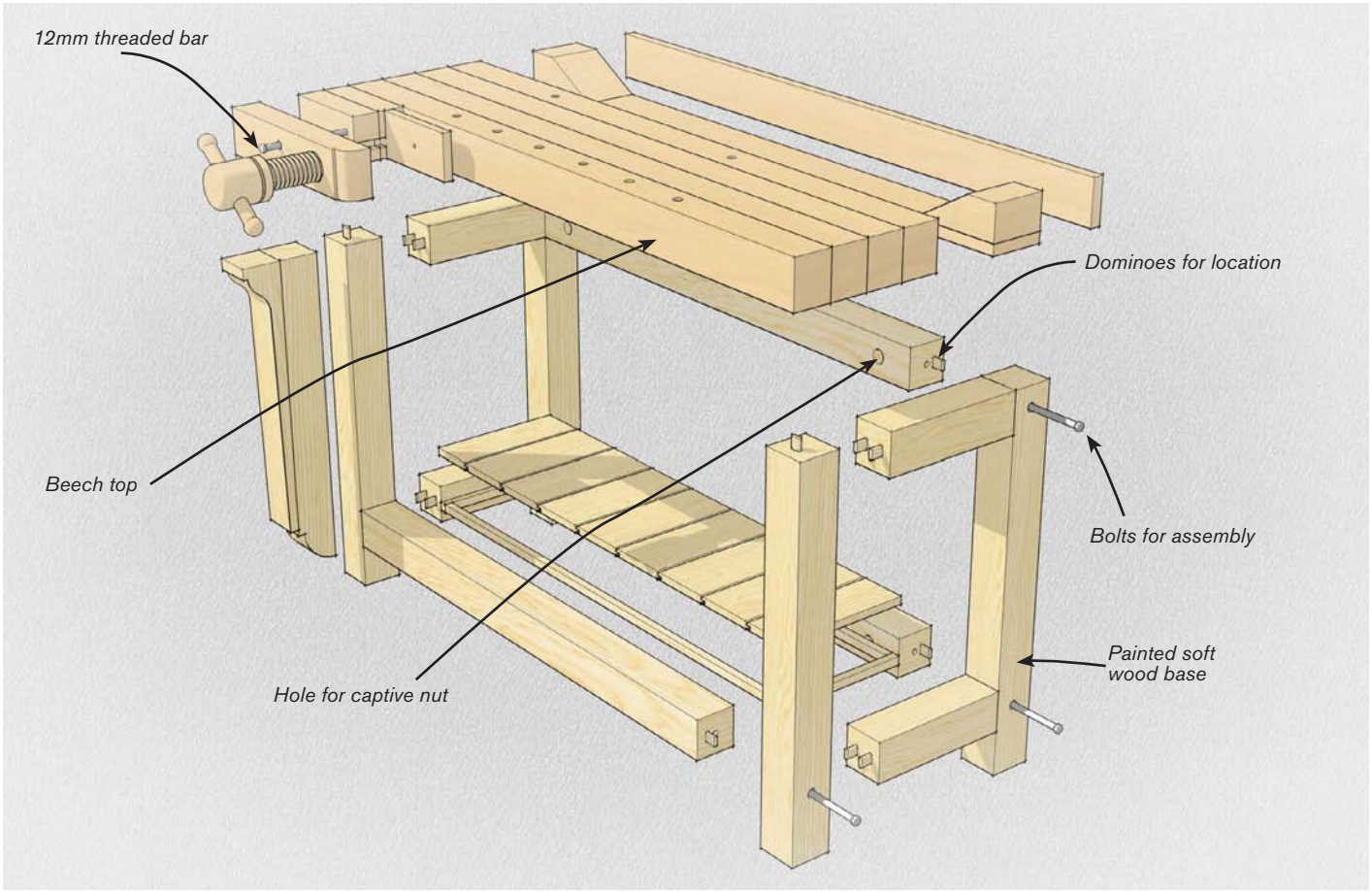


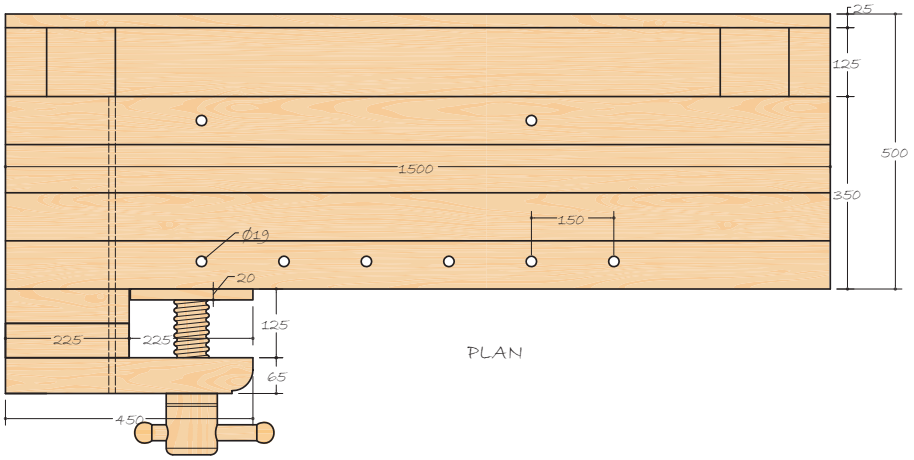
PHOTOGRAPHS BY DAVID BARRON

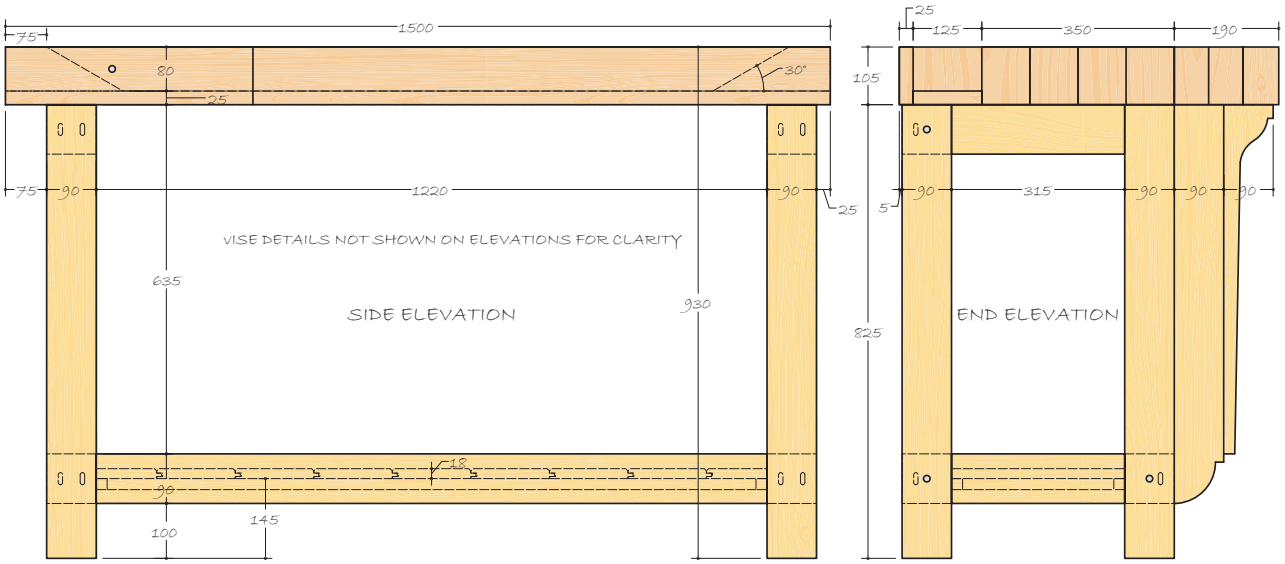
The four planks making up the main surface ready to be glued

Timber

Building the bench from solid timber was the obvious answer to avoiding dovetailed end caps and cross grain construction. The extra cost in material would be far outweighed by the time saved as well as providing a very solid working area. I used beech (*Fagus spp.*) to make the top 105mm deep, mine


12mm threaded bar
Dominoes for location
Beech top
Bolts for assembly
Painted soft wood base
Hole for captive nut


25
125
500
350
1500
150
Ø19
20
125
225
225
65
450
PLAN


75
1500
80
25
30°
75
90
1220
90
25
VISE DETAILS NOT SHOWN ON ELEVATIONS FOR CLARITY
635
930
SIDE ELEVATION
18
90
100
145
25
125
350
190
105
90
315
90
90
90
5
825
END ELEVATION

was cut from 85mm thick stock, which helped to reduce the number of joints, but you could easily make it from any thickness stock. I'm not a great fan of tool wells but I decided to incorporate one to reduce the weight, as I intend to take this bench to shows. The main working part of the bench was glued up from four planks, two at a time and then the two halves. If you try to clamp up more than two boards of this thickness it would be difficult to hide the glue lines.

The bench top

For this bench I used a 50mm wooden screw and arm salvaged from an old bench. Lake Erie Toolworks produce wooden screws or you could use a metal screw suited to the purpose, which are freely available in woodworking catalogues and are a lot cheaper. The infill section for the vice is solid timber, which can be glued up on both sides instead of being left to float as in the traditional design. I reduced this from the usual 200mm down to 125mm; this gives a 100mm opening on the vice, which is plenty for my needs. This meant I could get closer to my work and also allowed me to do away with the fifth support leg. The tool well section was also built with the grain facing in the same direction, which meant the base, the rear board and the two dust ramps could all be glued up to the main working area. The 12mm threaded bar is necessary to resist the clamping force of this style of vice and this was drilled right through from the front arm to the tool well. After drilling a recess for the nut, I started the 13mm clearance hole on the drill press for accuracy. With all the parts connected dry with undersized Dominoes, I could then use the first piece as a guide for a 13mm auger bit and work my way through each section in the same manner until the drill emerged at just the right place in the tool well area. The five sections of the top were now glued up – one at a time! – using full-sized Dominoes to ensure the best alignment for both the threaded rod holes as well as keeping the top as flat as possible.



The two halves being glued up



Checking proportions by dry fitting the top together



Gluing on the angled dust ramps



Groove to guide the vice jaw. Note the arrows that indicate grain direction for planing the top without tear-out



The five main pieces all planed square and trimmed to length



Using the drill press to ensure the first hole is dead vertical



Alignment with dry Dominoes and then using one part as a guide for the drill into the next



Gluing up the main top

The base

The base was made from 100mm square pine *(Pinus spp.)* as found in timber merchants – the 100mm is nominal as it is actually 94mm square. I like to choose as clean and straight boards as I can and never buy it if it's wrapped in plastic! It's best to leave this as long as you can in your workshop to settle down; three months is a minimum before using. After replaning, this ends up around 90mm square, which makes a very solid and heavy base. I chose to lower the bottom rail so I could sit down at the bench and use it as a footrest and I made the overall height of the bench 940mm, which I find much more comfortable, whatever Chris Schwarz says! The side sections were glued up using twin 50mm Dominoes as this method is a lot faster than mortise and tenons and still provides plenty of strength. The connecting rails also have a Domino fitted, which is glued into the side frame but left unglued into the rail and this is used to align the rail. This is all drawn up tight with threaded rods and bolts with the holes being drilled the same way as for the vice bolt, starting on the drill press and then using this to guide the auger bit straight and square into the rail. This overall method of building the under frame is very easy to knock down for transportation and easy to tighten up should it ever become loose.



All the parts for the base prepared



The top glued up with the through bolt fitted



Frame ends joined with twin Dominoes

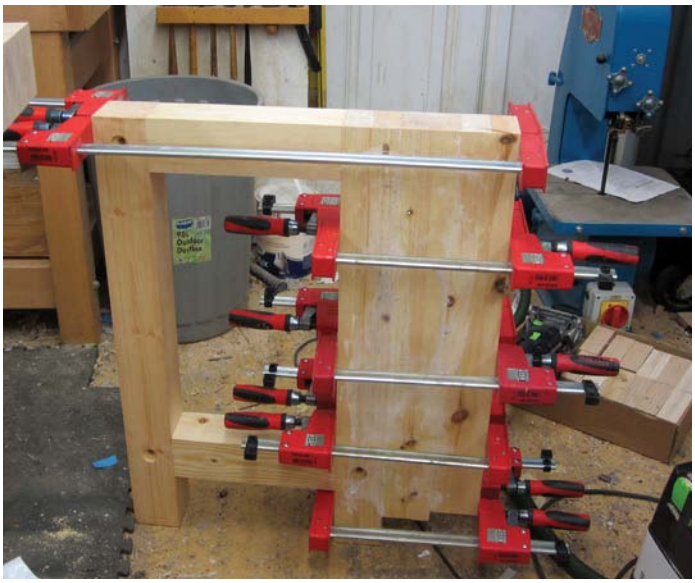
Supporting the vice

The next job was to add some support to the frame for the protruding shoulder vice and for this I glued on two more sections of the 90mm pine to the left front leg before shaping on the bandsaw. This provided plenty of support for the vice without the need for the annoying fifth leg. The knots were sealed on the pine with shellac and then the whole frame was painted in two coats of General Finishes Milk Paint – in the buttermilk yellow shade – and assembled. The front edge of the top is located flush with frame with a pair of Dominoes and this is the only attachment used, with gravity doing the rest!

The vice jaw was made to fit the slot in the overhang section and was attached to the screw with a bolt going into a threaded connector. I wrapped the bolt in PTFE tape, which stopped it from coming undone. I then faced the jaw in suede, glued on with double-sided tape leaving a hole in the centre should I ever need to adjust or remove the jaw.

Although I'm not a great fan of tail vices, I'd had this one for a while made by HNT Gordon in Australia and decided to use it on this bench. This one is a step up from the Veritas inset vice and moves very sweetly. The instructions were very precise, although in practice these tolerances are not necessary as the vice is screwed firmly in place. I used a 12mm router fitted with a 20mm spiral bit, which made very quick work of the recess needed. A wooden cover plate was then fitted to give a very neat finish, the instructions suggest this is screwed down but I used a shooting board to get a good friction fit and avoid the need for unsightly screws in the top. Lastly, I fitted a useful under shelf with tongue & groove pine and the bench was complete.

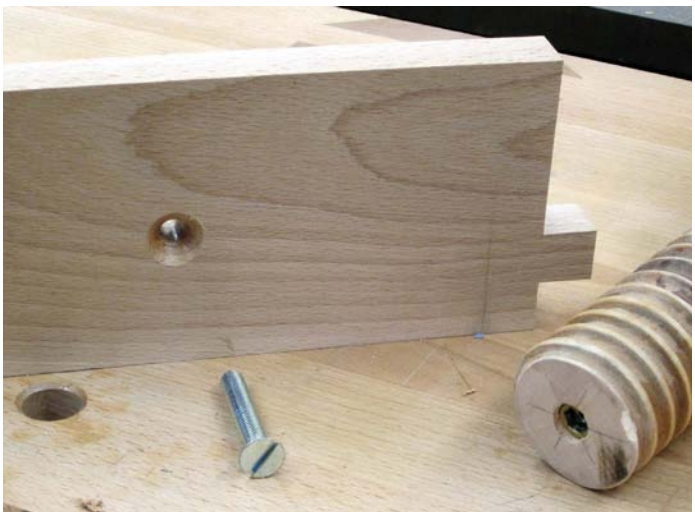
I was very pleased with the result, overcoming all my little issues with the more traditional version. In addition, it only took 30 hours to build and cost less than £300 in materials – excluding the vices – so is a very manageable and cost-effective project. F&C



Gluing on support pieces for the shoulder vice arm



Ends glued up and painted ready for assembly



My method of attaching the faceplate to the end of the screw



Dominoes at each end of the front locate the top flush with the front

Supplier details

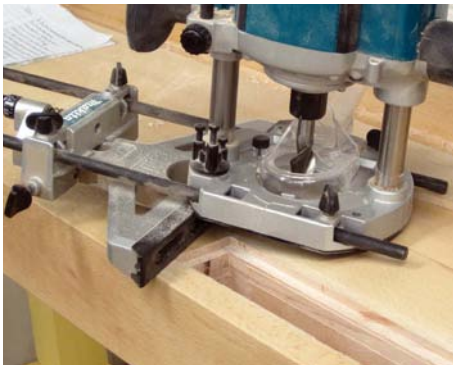
Wooden screws
Contact: *Lake Erie Toolworks*
Web: *lakeerietoolworks.com*

General Finishes Milk Paint
Contact: *General Finishes*
Web: *www.generalfinishes.co.uk*

Tail vice
Contact: *HNT Gordon & Co*
Web: *www.hntgordon.com.au*



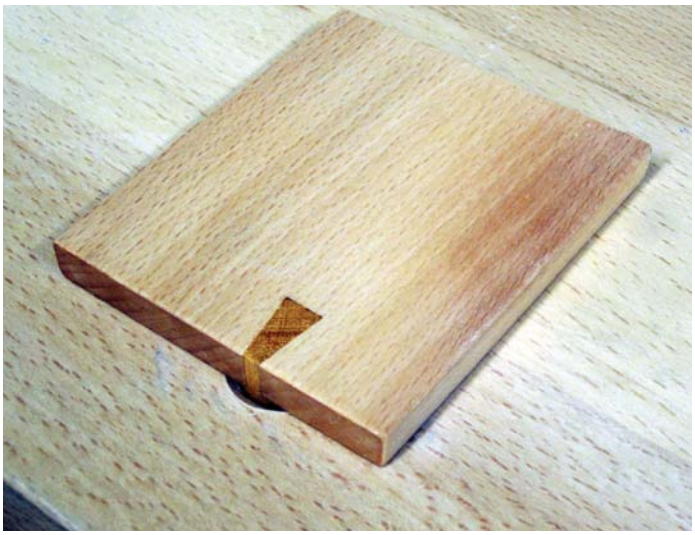
The inset tail vice fitted



A 12mm router with a 20mm spiral bit makes quick work of the deep mortise



The inset vice in action



Rotating stop with four depths for minimum adjustments with the vice and fewer holes in the top



The finished bench

NEXT MONTH in

Furniture &cabinetmaking

ISSUE 234
ON SALE
9 JULY



PHOTOGRAPH BY GARY ROGOWSKI

Are you just scraping by with your edge tools?

Gary Rogowski has the solution

Project

Roubo bench made easy

Machinery and equipment

Join the CAD/CAM revolution

Are you sitting comfortably?

F&C thumbs through The Chairmaker's Notebook

TORMEK®

Sharpening Innovation

SAVE £70

Now £459.96
Normally £529.96
Code 502867

First choice for sharpening

MADE IN SWEDEN

Tormek T-7 Water Cooled Sharpening System

- Tormek Original Grindstone sharpens all qualities of steel including HSS
- Silent 200W motor rated for 25,000 hours of continuous usage without heat
- Sturdy steel frame with ED coating for best protection
- Stainless steel main shaft with Ezylock
- Includes leather honing wheel and compound for razor sharp edge
- 7+3 warranty with simple online registration (7 years standard)
- Supplied with comprehensive handbook and starter DVD



Special package includes **FREE inspection light** and **Tormek cap** worth **£35**

Standard specification includes:



Stone Grader grades the stone for a 1000 grit finish



Square Edge Jig for plane irons and wood chisels



AngleMaster sets jig to any angle from 10°-75°



Truing Tool makes grindstone exactly round and flat

7+3 10 YEAR WARRANTY



BriMarc

For more information call ***03332 406967*** *or visit* ***brimarc.com***

Prices include VAT and are valid until 9th July 2015

Peter Sefton Furniture School .com

Woodworking & Furniture Making Courses

Learn to craft wood and make fine furniture on our long and short courses at purpose-built workshops in Worcestershire

Short Courses Include
French Polishing & Refinishing
Wood Machining
Dovetailing & Drawer Fitting
Veneering & Laminating
Routing
Sharpening
'Make a Box'
'Make a Table'
Beginners Course


Sam Carter
9 month student


Rick Howie
9 month student


Veneering & Laminating
4 day course

Garry Rowberry
9 month student

Call us on **01684 591014**
or find us online for information on all the courses
www.peterseftonfurnitureschool.com
The Threshing Barn, Welland Road, Upton upon Severn, Worcestershire, WR8 0SN

The Innovation Continues...



Rip-Cut™
KMA2675
- Simplifies process of ripping down large plywood & MDF panels
- Attaches to almost any circular saw
- Cuts accurately from 1/8" to 24" wide

Kreg Jig® HD
KJHD
- For use with minimum 1-1/2" materials
- Optimised for larger, outdoor projects



Shelf Pin Jig
KMA3200
- Hardened steel drill guides
- Removable, dual-position fence
- Standard 32mm hole spacing



Kreg®

Find your nearest stockist
kregtool.eu



PHOTOGRAPHS BY JOHN BULLAR

JAPANESE JOINTS – part 6

In the final part of his series, John Bullar looks at the use of Japanese joints in contemporary furniture

The history and traditions of Japanese joinery mostly derive from wooden architecture and temple construction. Following on from this, Japan had a strong involvement in the Arts & Crafts movement, which brought the techniques to the attention of Western furniture makers. Over the past century, Japanese aesthetics and techniques have influenced many European and American craftspeople. For the final part of this series, I have chosen examples to display the influence of Japanese joinery in some details of contemporary furniture. We will look at how these joints can be made and consider their merits both in terms of structure and appearance.

Choice of wood

Softwoods such as spruce (*Picea spp.*), hinoki cypress (*Chamaecyparis obtusa*) or larch (*Larix kaempferi*) are preferred for Japanese buildings whereas hardwoods such as fruitwoods are more likely to be the choice of furniture makers. The fine grain makes them more suitable for joinery on a small scale. Oak *(Quercus spp.)* is a universal choice because of its strength, uniform grain colour and good figuring as well as the heartwood's high resistance to rot and infestation.

Contrasting woods such as brown and white oak, rippled ash (*Fraxinus spp.*) or sycamore (*Acer pseudoplatanus*) and walnut (*Juglans spp.*) help to show display joints to their best advantage so they are certainly best for furniture making demonstration and photography. However, if you are aiming for more understated furniture, uniform woods lend greater subtlety to the joinery.

In some of these examples I have used ebony (*Diospyros spp.*) for little wedges and keys because it is extremely dense and pretty much incompressible, causing all the compression to be taken up by the wood around. Although sales of ebony are rightly limited for environmental reasons, small pieces are easily obtainable from recycled furniture and musical instruments. Ebony takes a very high polish, even from paring with a chisel or plane, so to avoid it becoming too glossy I finish the surface with medium-grade steel wool.

Flush-wedged tenon

The first joint we look at is based on the Wari-kusabi or split wedged through-tenon joint. The tenon passes right through the mortise and out the other side where wedges are fitted to visibly lock it in place. The mortise for the Wari-kusabi is chopped from both sides so as not to cause spelching where it emerges on the far side.

While previously in part two of this series – *F&C* 229 – we have seen how wedges can be concealed in a blind mortise, the wedges here are used as a visible feature. They also have the advantage that they can be driven in just as far as necessary to tighten the joint. In this example, the wedges, together with the protruding end of the tenon, are sawn off and then planed flush.



Mortise for the Wari-kusabi is chopped to one chisel width, entering the wood from both sides



A pair of wedges are inserted into slots in the tenon then planed flush

Proud-wedged tenon

In this variation of the Wari-kusabi joint the wedges – I have used three this time – are left proudly on display, still locking the through-tenon in its socket. Potentially the wedges could be removed to release the joint, especially if animal glue were used.

The through-tenon is sawn with slots to take the tapered pegs and each slot terminates in a round drilled hole so as to reduce the chances of a split propagating further along the line of the slot.

The three tapered pegs are pressed into the slots in the tenon, locking it in place with each top sticking out the same distance. I made a number of trial fittings using an overlength wedge to get this right before cutting the wedges to length and shaping their tops.



The through-tenon is sawn with three wide slots to take the tapered pegs. I used small pieces of ebony for the pegs but other fine-grain dense woods such as hornbeam or maple would be quite suitable



In this version, three matching tapered pegs are pressed into the slots in the tenon, locking it in place with each polished top left protruding by an equal amount

Butterfly keys

The Arikata or butterfly key joint was a signature feature of the late George Nakashima in his wildwood tabletops, as well as earlier Arts & Crafts makers. Nakashima would often joint in this way across the natural faultlines of the shakes in massive waney-edged boards.

Here is how I would go about making the joint: butterfly keys are measured and marked out with the aid of a bevel gauge, the angle each side is set to around 120° and then sawn out. The edges of the butterfly keys are shaved smooth and parallel using a fine paring chisel.

The two sides of the joint are clamped in position and the keys used as individual templates to mark out their matching sockets. If the joint is to have a gap in it then temporary spacers are fitted at this stage.

Butterfly sockets are then chopped out as far as the marking knife lines and the waste chippings pared away with a bevel-edged chisel. When glued into the socket the key is raised a millimetre or so above the surface so the butterfly joint can later be planed flush. Rails support the underside of the table top. These prevent cupping of the boards and strain on the Arikata joints.



Marking a butterfly key on ebony for an Arikata joint



Paring the edges of a butterfly key
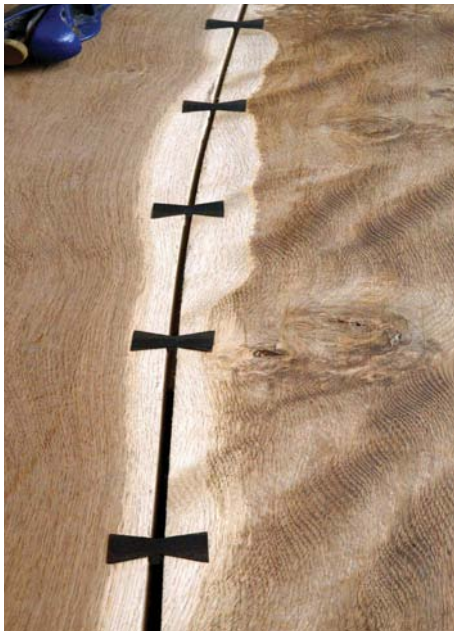


The joint is clamped in position and the keys used as individual templates to mark out their matching sockets



Chopping the socket for a butterfly key



Flush planing the butterfly keys



Tabletop in the style of George Nakashima with a pair of boards Arikata jointed

Twisted dovetails

The Nejiri Arigata or twisted dovetail is known as a puzzle joint, as well as being a strong practical way of joining the corners of high quality boxes, regardless of glue strength. The joint is visibly strong in both directions, unlike a conventional dovetail that can be pulled apart sideways when not installed as a drawer.

I started the box by preparing parts from pale rippled sycamore and rich purple-brown walnut. Nejiri Arigata joints need to be marked out simultaneously on both mating parts of the joint. For each joint, I laid out the two pieces of wood end-to-end, marking the outer corners of the pins and sockets. Four pins were sawn into the walnut while three intermediate pins were sawn in the sycamore.

A fine marking gauge was used to mark the bases of the sockets with a dotted shoulder line corresponding to the thickness of the wood, in the same way as you might when making through-dovetails.



Nejiri-Arigata joints are marked out simultaneously on both mating parts of the joint



The baselines of the sockets between the four pins are scribed with a marking gauge to form a set of shoulders



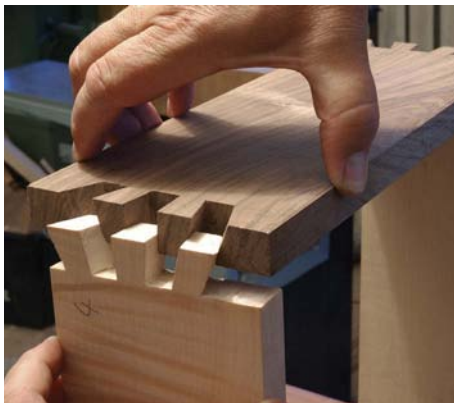
The sides and ends of the sockets are knife marked on the walnut against a bevel gauge using the same angle each time



Each board is clamped at an angle in the vice to give good visibility to the face and end of the board while the compound angles of the joint are sawn



The sockets between pins are pared out in the conventional way using a bevel-edged chisel



The tips of the pins and sockets are aligned ready to brush glue onto the internal surfaces before pulling all four joints together in one continuous clamping operation



Anyone looking carefully at the Nejiri-Arigata joints can see they will not come apart either longways or sideways

Sunray pattern

Use a sliding bevel gauge to transfer the angles between face and end grain making the same marks for both the pins and the sockets. The pattern I used on this box has a sunray motif joint. To make this pattern you can vary the angles across the joint so all the lines meet at a single point. You are free to use any angle for the side of a pin so long as you copy the exact same angle onto the end grain of the pin and the side and end grain of the socket.

The sides and ends of the sockets are knife marked on the walnut against a bevel gauge using the same angle each time. The sycamore is then marked again using the same angle for the sides and ends of the mating pin. The angle is then changed to mark the other corresponding pins and sockets.

It is a good idea to mark with pencil the waste pieces before you saw out any of the pins or their corresponding sockets. Clamp the timber in a vice at 45° so you can see both faces at once. Saw the sides of the tails with a fine saw, being careful that the kerf just meets the line.

Remove the sockets with a coping saw or fretsaw. The shoulders are cleaned with a chisel in the same way as through dovetails. The baselines of the sockets between the four pins are scribed with a marking gauge to form one set of shoulders.

Repeat the joint for all four corners of the box, copying the angles from the first joint each time. The sockets between pins are then pared out in the conventional way using a bevel-edged chisel. ➤



Assembling four joints

The joints on each corner must slide together at 45° while the pieces of wood are clamped at 90°. This means that the four sides of the box need to be squeezed together in one operation; otherwise the third and fourth joint will not fit. Once twisted dovetails are closed-up tight, even without glue, they would be extremely difficult to separate without damage.

To avoid this, engage the tips of the pins in their sockets, then sight across each joint at 45° to check the fit by eye.

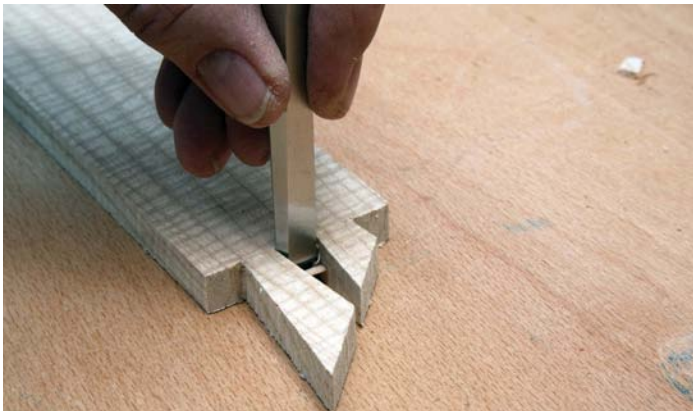
Once you are happy the joints are aligned, use a fine brush to glue the pin and socket internals before squeezing all four joints together. Once the glue is set, chamfer the edges before planing the joint flat and smooth. Chamfers allow you to plane off the edge of a joint without risk of splintering away the end grain from the outside of the pins.

Nejiri Arigata joints are intriguing and can be puzzling to the uninitiated as it is clear that they do not close together either longways or sideways. The finished joints however are strong and stable.

Double mitre lapped corner



Rails for a double-mitred Kakushi-ari-kata-sanmai-hozo joint are marked out then clamped low in the vice to saw the sides of the tails



The shoulders are pared with a fine bevel-edged chisel



Rails for a double-mitred Kakushi-ari-kata-sanmai-hozo joint are marked out then mitred tails are used as a template to mark sockets on the end grain of the corner post



Sockets are alternately chopped into the end grain then pared across it

The Kakushi-ari-kata-sanmai-hozo in its simplest form is a single dovetail let into end grain to form a strong corner joint. There are many variations to match different configurations and the example shown here is particularly attractive. Not only is it strong, spreading the load widely across the end grain, it also creates a distinctive motif patter as shown in the large photo at the start of this article. For joining two rails into the top of a corner post the double mitred Kakushi-ari-kata-sanmai-hozo is ideal.

The tails with conventional 1:8 sides and 45° tops are marked out then clamped low in the vice for sawing. The shoulders are pared with a fine bevel-edged chisel. It is important that the chisel is vertical otherwise the finished shoulders will be gappy, so I find it best to stand where I can hold the chisel edge-on, ensuring it does not tilt.

The mitred tails are firmly pressed against the end grain of the corner post, then used as a template to mark corresponding sockets. Extra care is needed to ensure the marking knife does not run off-course following the grain rather than the edge. Make a first mark very lightly, following it up with a deeper one. The sockets are alternately chopped into the end grain then pared across it removing a couple of millimetres at a time so as not to risk splitting the wood. A very narrow chisel or a skew chisel is needed to remove the waste right into the far end of each socket. When assembled, the double bevelled Kakushi-ari-kata-sanmai-hozo leaves a distinctive symmetrical pattern in the end grain. The number of tails used depends on the scale of the joint. Four of these joints around an occasional table look particularly attractive.

Conclusions

Of course the subject of Japanese joinery is huge and I have only scratched at the surface with a few details that I think may be of interest to contemporary furniture makers. Even so, it provides a useful follow-up to my book *The Complete Guide to Joint Making*, which you may find useful for information on Western furniture joints.

I have enjoyed researching, photographing and writing this series so I hope it sparks off some ideas that you can use in your own furniture designs. F&C

Forsa Series Professional Panel Sizing Saws

Designed in Germany - Manufactured in Germany - Proven in Germany

Scheppach Forsa Series professional panel sizing saws are distinctively German from head to toe. German technology - German innovation - German quality - and five models to choose from offering between 1.6m and 3.2m length of cutting stroke. All Forsa Series come complete with patented integral motorised cast iron pre-scoring unit whilst still retaining a 107mm depth of cut for ripping solid timbers plus micro rip fence setting to within 1/10mm. The precision sliding beam can be equipped with optional professional sliding table carriage with telescopic arm and table width extension (TWE) as illustrated. (Both included in prices quoted below.)



Forsa 4.1
2.1m Precision Panel Sizing Saw
Professional Series

Forsa 4.1 c/w optional professional sliding table carriage with telescopic arm & table width extension - but included in price quoted below.

Order Online

4 YEAR WARRANTY
Terms and Conditions apply



Forsa 6.0*
2.1m Precision Panel sizing saw
Professional Series



Forsa 8.0*
2.6m Precision Panel Sizing Saw
Professional Series



Forsa 9.0*
3.2m Precision Panel Sizing Saw
Professional Series

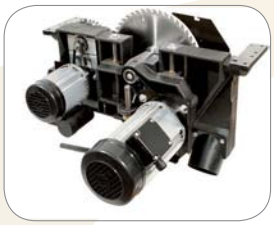
Also available. Precisa Series of Classic circular sawbenches with optional pre scoring function.



2 separate hand wheels for precise height & angle settings.



Micro fence setting scale to within 1/10th mm calibrations.



Patented cast iron sawing assembly c/w integral motorised pre-scoring unit.



Height & side setting of the scoring blade conveniently accomplished with the tool provided.



Optional Pro DUO guard system c/w 2 hoods for straight and bevelled cuts. Also ideal for hidden cuts.

*Forsa 6.0 / 8.0 / 9.0 above illustrated without professional sliding table carriage (Pro STC) with telescopic arm. **All prices below include Pro STC & TWE**. Substantial price reductions available if standard solo outrigger table required. All prices ex works. Carriage **extra.** Forsa 4.0 / 4.1 - tail lift required. Forsa 6.0 / 8.0 / 9.0 - fork lift truck required. P3 models inc extra support table & clamp

Model	Product Group Series	Specification Includes (as per quoted price)	Mc HP / Scorer / Volts	Depth of cut & length of stroke	Price Exc VAT - Plus Carriage	Price Inc VAT - Plus Carriage
Forsa 4.0 - P2	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 1.6 m	£2,995.00	£3,594.00
Forsa 4.1 - P2	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 2.1 m	£3500.00	£4,200.00
Forsa 6.0 - P2	Professional	Inc Professional STC + TWE + TLE + Scorer	5.4 / 1.0 / 415v	107 mm x 2.1 m	£3,995.00	£4,794.00
Forsa 8.0 - P3	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 2.6 m	£4650.00	£5,580.00
Forsa 9.0 - P3	Professional	Inc Professional STC + TWE + TLE + Scorer	6.5 / 1.0 / 415v	107 mm x 3.2 m	£4,800.00	£5,760.00

STC = Sliding Table Carriage. TWE = Table Width Extension. TLE = Table Length Extension. P3 models inc extra support table & clamp.

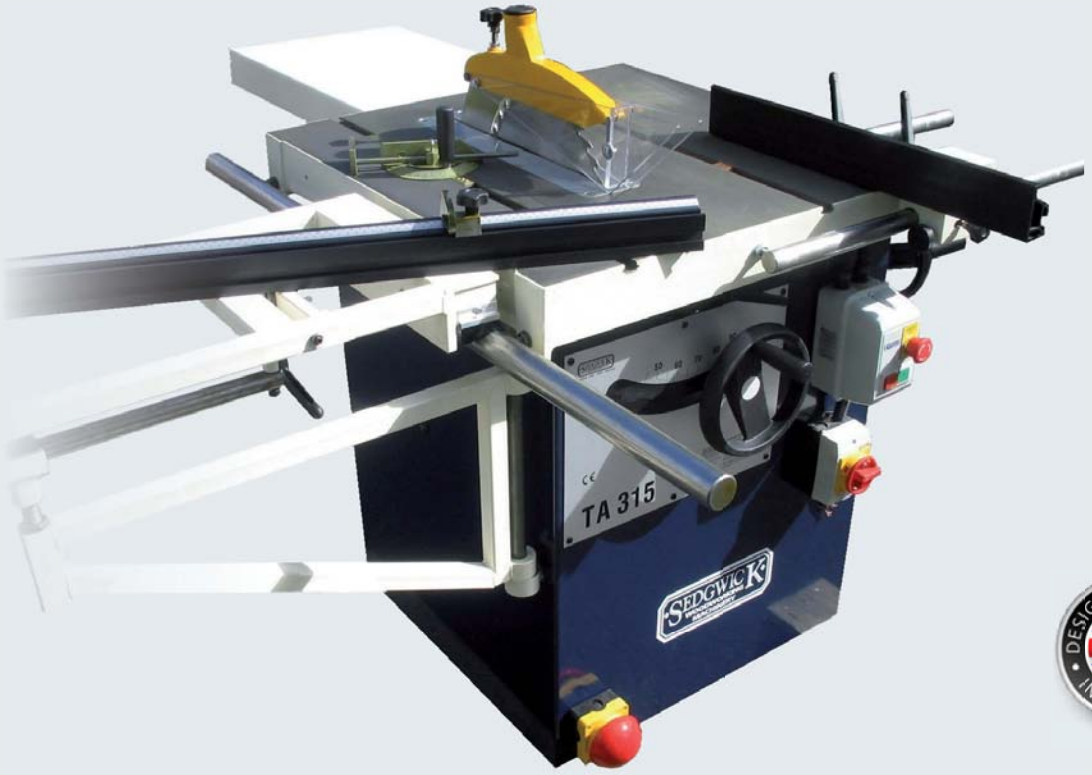
NMA AGENCIES LTD
www.nmatools.co.uk
Birds Royd Lane, Brighouse, West Yorkshire, HD6 1LQ
Phone: 01484 400 488
sales@nmauk.com
FREE 160 page Catalogue. Available on request.

TA315 TILT ARBOR SAWBENCH

The backbone of any joinery workshop, a sawbench should be powerful, accurate, reliable and simple and safe to operate. The Sedgwick TA315 is designed with this in mind, and offers outstanding value for money. Its strength is in its construction, precision engineering and our insistence on using only the best quality components.

FEATURES INCLUDE:

- Aluminium Riving Knife Mounted Sawguard with Clear Polycarbonate Hinged Visors
- Cast iron table incorporating ¾″ TEE slots either side of the saw blade
- 6″ Protractor Scale with length stop
- High efficiency IE2 industrial rated Electro-magnetic Braked Motor
- Fabricated rear table extension



For further details of this & our complete range of woodworking machinery please visit www.sedgwick-machinery.co.uk, or contact us at:

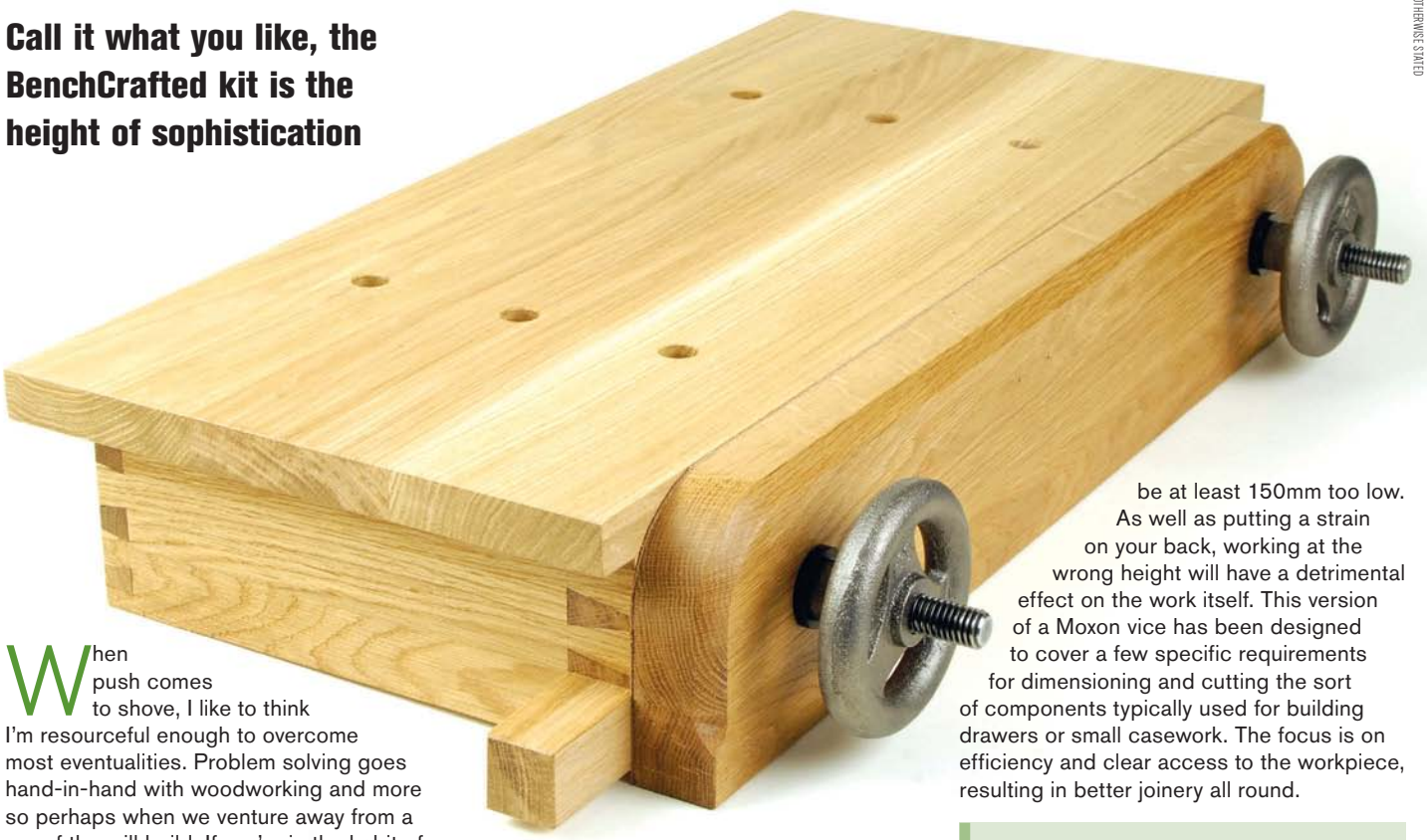
M. Sedgwick & Co. Limited, Stanningley Field Close, Leeds LS13 4QG

E: sedgwickmachinery@btinternet.com Tel. 0113 257 0637 Fax. 0113 239 3412

Twin screw or Moxon?

PHOTOGRAPHS BY GMC/DEREK JONES, UNLESS OTHERWISE STATED

Call it what you like, the BenchCrafted kit is the height of sophistication



When push comes to shove, I like to think I'm resourceful enough to overcome most eventualities. Problem solving goes hand-in-hand with woodworking and more so perhaps when we venture away from a run of the mill build. If you're in the habit of making one-offs, everything you make is more or less a prototype and the tools, their setup and the jigs you use along the way, are also temporary solutions. As much as we like to spend long days in the workshop, we also want those hours to be well spent – nobody wants to waste time at the bench. Streamlining your workflow and generally becoming more efficient will help you claw back valuable time to spend on the fun stuff.

Looking at the options for workholding, for example, there seems no limit to our ingenuity and creative muster to get a grip on the most awkward shapes. From the bench hook to the patternmaker's vice, there's a hold fast for everything. Initially we might assume that such captive devices are merely adding convenience to a process and most of them certainly do that. A few, however, go further and have a positive effect on our technique.

Form and function

A couple of months ago, we ran a project to build a benchtop bench courtesy of Jeff Miller. This month, we're not so much going to raise the bar a little, we're going to shift it sideways a bit and incorporate the Moxon vice kit produced by BenchCrafted in the US and distributed by Classic Hand Tools in the UK. If you want to know a little more about the Moxon vice and its origins, there's plenty of information online. We've even looked at the Moxon before in *F&C* 220 through a project by Jason Thigpen, who built an excellent low-cost version.

This type of vice is particularly useful if you produce a lot of hand-cut joinery. Typically, most benches will have been designed to achieve optimum planing efficiency, i.e. with a worktop somewhere below your elbow when your arms are bent at 90°. However, this height is not so good for prolonged periods of time spent at the vice cutting joints. Roughly speaking, it could be at least 150mm too low. As well as putting a strain on your back, working at the wrong height will have a detrimental effect on the work itself. This version of a Moxon vice has been designed to cover a few specific requirements for dimensioning and cutting the sort of components typically used for building drawers or small casework. The focus is on efficiency and clear access to the workpiece, resulting in better joinery all round.

Supplier details

Moxon vice kit
Price: *£152.40*
Contact: *Classic Hand Tools*
Web: *www.classichandtools.com*

Famag Bormax Forstner bit set
Price: *£189*
Contact: *Workshop Heaven*
Web: *www.workshopheaven.com*

Hold fast

The Workmate is the first experience of portable, convenient workholding for most woodworkers. It's a great design for short bursts of activity but too low in most cases for planing and too high for sawing. Japanese floor trestles are a handy solution to raise work higher off the bench or allow you to work on the floor. Door blocks are used to support a door on its edge while fitting locks, hinges or just shooting to width



Japanese-style saw horse



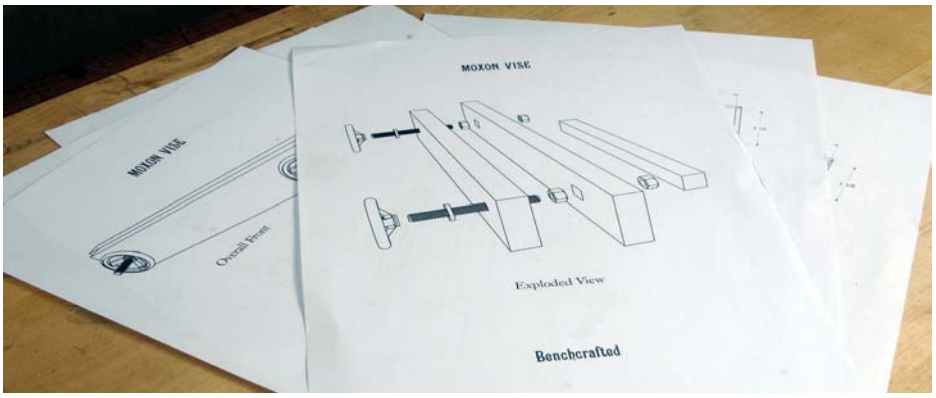
Pig ugly but much loved door blocks



It doesn't matter what the wood is as long as it's hard



BenchCrafted Moxon vice kit



Print your own instructions and Moxon history

Moxon-Workmate hybrid



The Sjobergs single screw vice

By coincidence, we had a worktop bench made by Sjobergs arrive in the workshop this month and although appropriate for a lot of tasks, it lacks the stability and finesse that could improve your game significantly. It has a shallow single screw vice with a small benchtop-like surface with dogs, which allow the user to secure a workpiece on the top. I can definitely see the advantages and if you are on a budget or an infrequent user, it has many of the features we are looking for. There is a little assembly required before you can start work in earnest but you should be up and running in about 15 minutes

Hardware

The hardware for this project is produced in the US by BenchCrafted and distributed in the UK by Classic Hand Tools. The quality and spec of their products is extremely high, putting them in the professional league for a host of workshop accessories. The kit may not be cheap but like most things in life, you get what you pay for and when you're ready to hang up your 'shop apron for the last time, the BenchCrafted Moxon hardware won't even have broken a sweat. The kit consists of two 19mm × 8tpi ACME threads, four large nuts, a pair of heavy-duty washers and handwheels and a length of leather to line one of the vice jaws. It's very basic and just what you need. What's not included are instructions on how to build the vice. For these you'll have to visit the BenchCrafted website and download around a dozen pages of introduction, tutorial and dimensioned drawings. If that sounds like a faff, it isn't and don't attempt to build your vice until you've read it. There are some useful tips contained within. Not least some good advice on timber selection.

This build started with a trip to the local timber yard in search of suitable offcuts. You can be fancy and source something like walnut (*Juglans spp.*) or cherry (*Prunus spp.*) for your vice or grab what's available like I did and opt for European oak (*Quercus spp.*). Hardwood is best and if you can find boards that are free from knots and wild grain, you'll have made the right choice.

Flat top

Our Moxon has an extension behind the rear jaw that becomes a mini workbench, so you'll want it to behave like a benchtop and that means making it as flat as you can. I started out with 37mm-thick boards and there's a reason for this that will become apparent later. The construction is what you'd expect for any worktop: jointed edges and alternately laid grain. I used a Mafell Duo Doweler (DD40) to reinforce the joints. The DD40 drills a pair of holes on 32mm centres to take the dowel of your choice. Depth and gauge can be 'dialled' in. Whether I'm using dowels, biscuits or Dominoes, I like to place one beyond the dimension line of the worktop or in the waste material, if you prefer. If your boards are perfect and you're an absolute whizz when it comes to flattening boards, you won't need to bother. If, on the other hand, you prefer a belt and braces approach, the benefits are as follows.

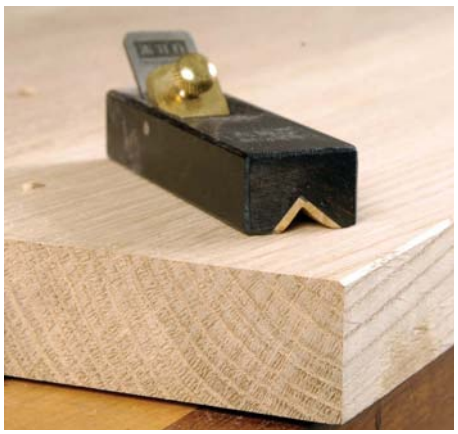


The DD40 will put a dowel either side of your cut line

1. Perfect alignment from the reference face of the boards when gluing up
2. Not having to worry about snipe on the ends of your boards

Using the dimension cut line as the location for the DD40 puts one dowel conveniently in the waste and another in the worktop, as close to the end as you would want.

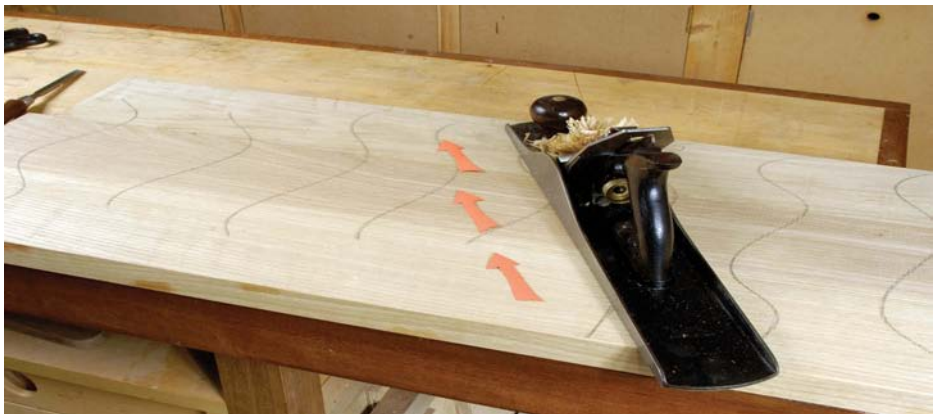
Although the underneath of the worktop will never be seen, it will be a reference face for the base so needs to be flat and



Chamfering the board edge will help prevent breakout



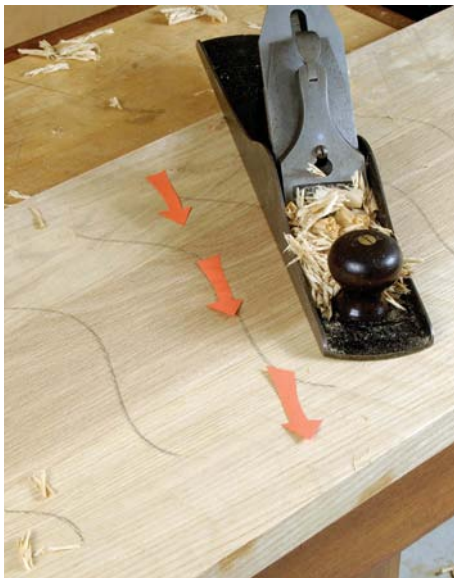
Mark the surface with lines from edge to edge



With a little skewing, something close to 45° should do it

straight. This is a good exercise in worktop levelling and a great deal easier than your regular benchtop. Before you reach for a No.5 or No.6 plane, put a tiny chamfer down the long edges of the worktop. Mark your surface with some squiggles across the entire width of the board and set about planing diagonally across the board in even, uniformly spaced strokes. Don't labour over any one area. Keep moving, removing the same amount of material with each pass. Repeat the process from the other side of the board and then twice more in the opposite direction. A round of four passes is a complete cycle. Now check for flatness with a straightedge and repeat the cycle until all the pencil lines have gone.

You can now reach for your smoothing plane, a No.4 or No.5 perhaps, and remove the lines caused by traversing the board. Be mindful of how much material you remove doing this as you can quickly return the board to being un-flat, which you do not want. If your plane is well-tuned, however, there's no reason why you can't get to within feeler gauge tolerances. You can put the worktop aside now and flatten the top face later.



Back the other way. The high spots on this worktop are at the edges



Test for flatness



When you need a reliable tradesman for work on your home…

…choose a member of The Guild of Master Craftsmen.

For a tradesman you can trust – and a job done well.

findacraftsman.com
The only place to list members of The Guild of Master Craftsmen exclusively

Fixed jaw

Structurally, the fixed jaw is the most important component in your Moxon. Cut corners on this part and you may as well go back to your Workmate. The working face is what your workpiece is clamped to so if it's twisted or bent, this discrepancy can be transferred to the workpiece. The hardware is built into this jaw so, just as importantly, it needs to be accurately drilled and fitted.

The BenchCrafted instructions give you a couple of options for mounting the front nut: cut a square mortise to the required depth or a hexagonal one. As long as the bottom of the mortise is flat and the sides are square, there's not much else to worry about. A drill press and a good set of Forstner bits are the obvious solution to removing much of the waste – this set by Famag from Workshop Heaven are excellent; they leave an almost burnished wall to the hole and a clean top edge.

Create your mortise by first drilling a large blind hole to the depth of the captive nut, then swap to the smaller bit and make the through hole. Use whatever means you have to cut the mortise to fit the nut. With such heavy-duty hardware, you can afford to finish a little proud of the surface as there will be some compression of the timber when you tighten the rear nut.



Famag boring bits from Workshop Heaven



Twin-bored hole and mortise ready for trimming



Vertical support will help with alignment while chopping out

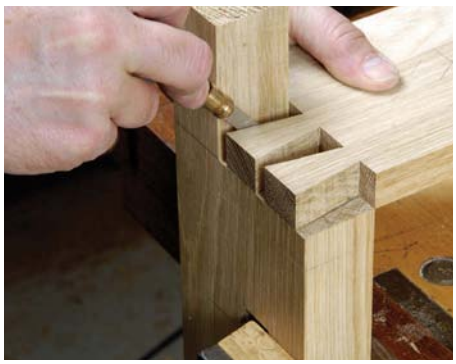


Front nuts need to be sunk flush with the surface

Base frame

The base frame is through dovetailed on all corners and the joinery is robust rather than pretty. The back part resembles that of a drawer back while the front is the fixed jaw. Cut what you consider to be sufficient material away from the two top corners of the jaw to create horns suitable for clamping the Moxon to your benchtop. Leave enough space to allow for a couple of dovetails and room for marking them out.

On the inside face of the frame, cut a channel to accept buttons to attach the worktop. I did mine with an electric router and a grooving cutter. You could do yours with a two-flute cutter before gluing up or with a plough plane. The top edge of the fixed jaw is drilled for dowels to locate the worktop – they won't get glued. The row of buttons are set just below the top edge of the frame so that they pull the two pieces together nice and tight. When it comes to attaching the worktop, position the buttons with a small gap to allow for any seasonal movement. The dowels in the fixed jaw mean that any movement will be towards the back of the vice and not the front. You can now flatten the top face of your worktop and trim to size, leaving enough of an overhang on the sides and back for clamps.



Robust joinery, not pretty



Leave a good horn at each end for clamping



Cut a groove for the buttons on the inside of the base frame



Set the buttons just below the surface



Leave room for movement



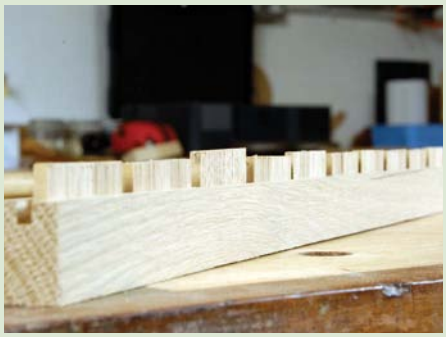
Flatten the top of the worktop

Buttoned up

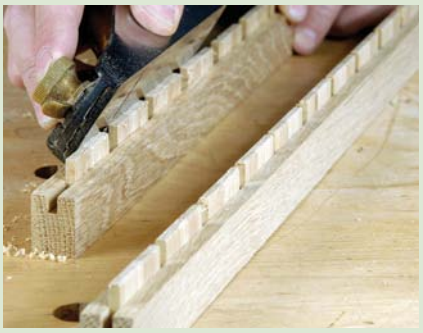
These buttons are quick and easy to make. The measurements aren't crucial so use whatever tooling and material you have to hand. Mark a face on your battens and create a groove that corresponds with the one on the frame. Your face side represents the top of the frame edge. Plane up a tight fitting loose tongue. Cut sections to fit into the groove with the grain direction pointing up. Don't worry if they are uneven. Bunch them together and plane them level or trim them on a bandsaw or tablesaw to a uniform height. Put a small chamfer on the edges. Drill and countersink behind each tab. Fit the entire batten of buttons into the groove on the frame facing up. Remove and take a skim off that face, then cut the buttons off the batten as you need them



Cut grooves in your battens



Insert tight fitting loose tongues



Trim and chamfer

Final tweaks

The front jaw is where you have to start thinking about what constitutes good form over good function. There's little doubt that a chamfer will give you better access to some sawing procedures and it's worth considering how much you think is needed before removing material that will be hard to replace if you get it wrong first time round.

For straight cuts, i.e. horizontal, no chamfer is required. For sloping cuts that might include lapped dovetails, the chamfer has to be quite severe to have any effect. If the scale of your work is small, then head towards a large chamfer; if not, and the components can withstand being mounted in the jaws high enough to avoid making contact with the saw, choose a small one or none at all. Everything else from here is fluff. You decide.

I mentioned earlier why I thought it was a good idea to make a thick worktop and this is due in part to the use of holdfasts to secure anything to the worktop. This suggestion by the way came from our regular correspondent Kieran Binnie. You may have to carry out your own experiments to find out what combination of holdfast, hole size and worktop thickness works, but I have had good results with the short stem Veritas holdfast, a 20mm diameter hole and 32mm-thick worktop. If you're clever – I was just lucky – then you could position your holes to sit directly above those that are in your workbench.



Little clearance is needed for level cuts



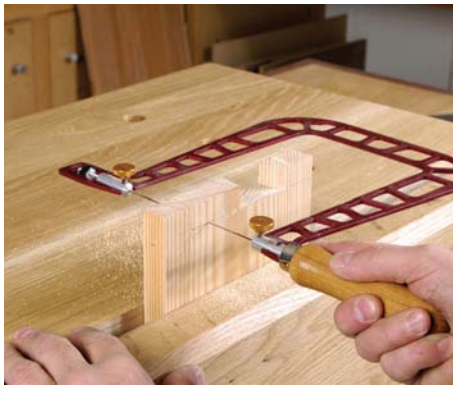
A lot of clearance is needed for sloping cuts



Use a portable pillar drill for dog holes

Conclusion

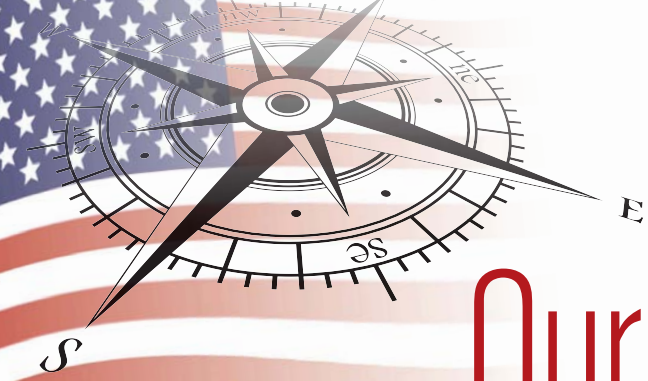
There's absolutely no doubt that taking your work zone closer to your eye level helps reduce the number of fatigue induced errors. I've often questioned the merits of a tapered saw plate for a dovetail saw. I get the thinking behind them but I still prefer to check both sides of the boards as I'm sawing. Elevating your work surface gives you a much better perception of what's level. Base line cutting, for example, is much improved. The heft of the jaw hardware and weight of your Moxon means you can tackle vertical chopping without bending over and make that all important transfer window with ease. F&C



Great for baseline cutting



A safe and accurate means of transferring layout lines



Our correspondent...

PHOTOGRAPHS BY JOSEPH THOMPSON

Knowing your craftsman

Joseph Thompson of Joseph Thompson Woodworks discusses chair repairs and the importance of respecting and maintaining the item's integrity

Recently, a client brought us some chairs that were badly in need of repair. They were a wedding gift to her parents in the 1930s. The chairs weren't priceless antiques, but they were very special to the client. I agreed to fix them as it seemed they just needed a little TLC.

Over the years, *F&C* has acquired readers from all four points on the compass and since going digital in 2013, that trend has increased. You can find us anywhere in the world with a link to the web. As the content of the magazine is a true reflection of our readership, we've decided to introduce a new style of article that will take us on a workshop tour of the globe.

Our reporter this month is a furniture maker whose passion is for creating bespoke, heirloom quality furniture and home decor using traditional woodworking techniques and responsibly harvested fine hardwoods. This husband and wife team were profiled in issue 221 and in this issue, discuss chair repairs and the importance of knowing your craftsman as well as respecting and maintaining the item's integrity during the restoration.

What's the damage?

Upon further inspection, someone had obviously attempted to repair the chairs previously. The seats had separated on their joints and most of the spindles were loose due to glue failure. This happens, but how they were 'fixed' was questionable at best.

I can't blame the person who fixed them; maybe they didn't know any better. This brings up the idea of knowing your craftsman. We've all heard of 'knowing your farmer' but why not knowing your craftsman? There is an issue of trust when it comes to dealing with objects of value. Whether it's monetary value or sentimental value, we should treat the objects with respect. The best way to respect these objects is to preserve their integrity.

We all know chairs are abused, intentionally or not, it happens. People flop down in them, rock them back on their rear legs and drag them across the floor, and so on. A chair maker knows this and should build and repair accordingly, but there are limits as to what he or she can do. The level of care is ultimately up to the owner.

As a result of normal wear and tear, these pieces have a lifespan. Hopefully, as in this case, the adhesive fails first, then joints loosen and glue fails. What happens after that is what I'd like to focus on and how I approached the repair of these chairs.

Repairing chairs

The first step is a close inspection. In this case, the cross-bracing was glued and nailed to the bottom of the seat in an attempt to stop the seat from separating. The unintended results were the worsening and continued cracking of the seat joints.

It's possible the original repairer didn't understand wood movement. They shoved wedges, putty and glue into the cracks. A proper fix will consist of disassembling the joints, cleaning off old glue and, if possible, regluing the original joint. If battens on the underside are the only option, be sure to use slotted countersunk holes with screws to allow for seasonal movement.





Disassemble as many of the old, loose joints as possible. Stretchers, arms, rockers and backs all contribute to the chairs overall form and therefore its stability

Loose joints – legs and spindles

In these chairs, the joinery consists of round tenons mating into round mortises for the leg-to-seat joinery. In nearly all of these, the glue had failed. There was some attempt to glue them back as I discovered dried glue pooled around the base of the spindles. Even worse, some of the more critical joints – for example, the legs-to-seat joints – were reinforced with screws driven in at an angle, sometimes hidden with putty, sometimes not.

There were also several instances where nails were driven in in an attempt to fasten them further. Of course, this didn't provide a long term solution.

When I disassembled the joints, I found old, dried glue in the bottom of the mortises preventing a complete seating of the joints. I carefully drilled out the mortises to remove the old dried glue. I also removed the old glue on the tenons with a chisel and card scraper. Gel stripper also works well to loosen the old glue.

The mating surfaces should be clean and free of dirt, wax and old glue to ensure a good bond when re-gluing. In the case where disassembly isn't possible, you can drill a tiny hole that enters the mortise, large enough for a syringe where glue can be injected to sure up a joint. If at all possible, a complete disassembly and re-gluing is preferred.

Choosing a glue for repair

When choosing a glue to repair joinery, there are several things to consider. How likely is it that this piece will need repairing in the future? In the case of chairs, it's pretty likely. Using epoxy, or polyurethane glue might sound tempting as both of these adhesives are strong, gap-filling and moisture resistant. That being said, they likely won't be an easy repair for the next person. I suggest the proper repair as discussed earlier, and using hide glue.

Hide glue is traditional, time-tested glue used in furniture and instrument making. Liquid hide glue is available from your hardware store and ready to use out of the bottle, no glue pot required. One of the many benefits of using hide glue is that it is reversible. It is also non-toxic and very strong. With a wet cloth and heat from an iron, hide glue can quickly and easily be reversed, allowing for joints to be disassembled. Hide glue should be a consideration for new builds as well, as hopefully our pieces will be around long enough to need repairing.

The biggest tool you'll need is patience to do the right repair this time round so that the next repair isn't as painful for the next person. Taking these extra steps ensures a long lifespan for the piece and more years for it to be enjoyed, as intended by its maker. F&C



Nails were driven in in an attempt to fasten them further



Old, dried glue in the bottom of the mortises prevented a complete seating of the joints



The mating surfaces should be clean and free of dirt, wax and old glue

PHOTOGRAPHS BY ANNE BRIGGS BOHNETT & JOHN BRIGGS

Brace yourself for a very boring article!

Creating holes 'the slow way' is very enjoyable, satisfying work and this practice can help grow your skill set in many other areas of woodworking as well, as Anne Briggs Bohnett explains here

Insert bit horizontally and close chuck loosely

One of my first memories is using my grandfather's eggbeater drill in his workshop. I used it to 'build' all kinds of treasures while he puttered around. Yet another reason I love hand tool woodworking is the ability to use them to empower young woodworkers. At three years old, my grandfather put a hammer in my hands and gave me an ample supply of wood and nails. I graduated quickly to a hand saw so I could better shape the wood to the necessary dimensions for my creations. Soon small squirrel and bird houses began to take form.

In many woodworkers' minds, the speed, ease and accuracy of electric and battery-powered drills has erased the need for a good brace and hand drill from the woodworking 'shop today. Even I grab my trusty Lithium-Ion drill far more often than I care to admit, but I'm still convinced even with the advances in technology, a good hand-powered brace and drill can never truly be replaced. For the same arguments as using most other hand tools, the brace and drill should more than earn their keep in every tool chest: less noise, less dust and less speed – read: greater accuracy, fewer burned tips and less opportunity for error.

Mounting the bit

Boring holes is an absolutely essential woodworking task – whether it be as simple as pre-drilling for screws and nails, as complex as creating joinery, or excavating waste from mortises.

Tips for early success

- Mount your bit properly
- Make sure you have a sharp bit and a well-oiled tool
- Use the reflection of a compact disc to drill straight
- If you're struggling drilling an especially thick hole, try drilling a pilot hole first with a smaller bit



Flip brace vertically and tighten chuck

Mounting the bit in the chuck

Holding the brace horizontally, open the jaws so the bit can slide in. Tighten it just enough that the bit won't fall out, but is still loose, then turn the brace vertically and tighten the chuck around the shank of the bit; this will ensure that the bit gets mounted straight and will keep you from inserting the bit too far and damaging the inside spring mechanism of the chuck.

Mark the centre point of your hole with an awl. With a sharp bit mounted securely in your chuck and having taken on the proper stance, set the tip of your bit in the hole and start turning.



Mark the centre point

Drilling straight

As you drill, maintaining a straight, even line is crucial. Some people find it helpful to use two squares at 90° to one another for straight holes, or two bevel gauges set at opposing angles for angled cuts. This is easiest when drilling vertically, but can also be accomplished when drilling horizontally by clamping your squares/bevel gauges to the sides of your work piece. A great tip I was recently taught is to use the reflection of a compact disc the same way you use the shiny plate of your saw to determine whether or not you are cutting straight. This works great vertically and horizontally. To keep the disc where you want it when drilling horizontally, all you need is a bit of double-sided tape. Place the CD shiny side up with the hole centred over the spot you're about to drill. Watch the reflection of the drill as you advance the bit. If the image isn't an exact mirror, you're drilling crooked.

Both methods are great aids, but I recommend that you daily make a conscious effort to learn to 'see square' so the only apparatus you really need are your eyes to ensure you are always working straight and true. This will help with your sawing, will help eliminate layout mistakes and will allow you to foresee problems before they become bigger issues within your projects. Whenever mounting anything in my vice, I always take care to make sure it's sitting exactly at 90°, whether it 'matters' or not. Today, if my workpiece is mounted even 3mm crooked in my end vice, I can see the error from across the workshop.



A CD is a great aid in drilling straight



Sight down the brace as you begin to turn, pause occasionally and check for square

Guarding against blowout

To eliminate blowout when drilling holes, especially large ones, come in from both sides of your workpiece with your drill, i.e. drill nearly through one side, then flip the board and complete your hole from the other side. A good tip here is to allow the very tip of the threads of your bit to poke out, flip and use that tiny hole as the centre for your bit on the other side. Another option is to tightly clamp a scrap board to the back of your workpiece and drill past your hole and into the scrap. Once the threads of your bit clear the opposite side of the board, the bit will not continue to cut as it's intended and the only way through at that point is excessive force, which is the cause of blowout at the back of the cut.



Some ugly blowout

Community Toolchest

I met my friend Jason Thigpen through the social media site Instagram just over a year ago. He and I quickly bonded over a mutual love for woodworking and a similar sense of humour. We both ended up starting small woodworking businesses around the same time and that solidified our friendship. I was able to buy one of his first custom aprons and the quality and calibre of his work were such that I have resolved to acquire every subsequent product he puts out, which most recently included his auger bit rolls. The waxed canvas protects my bits from the moisture that constantly hangs in the air here in Seattle. The individual pockets prevent the bits from being jostled against one another and thus keeps the edges sharp. The pockets also help me to keep the bits organised by size so it's quick and easy to grab the one I want.

One of the most precious items in the Community Toolchest is this Millers Falls No.2 eggbeater drill, which was expertly restored by Ted Hoeft of Lone Pine Toolworks. During our many email exchanges, we have discussed everything from springtime chicks to tool restoration techniques and I can tell that Ted has a heart of gold and a passion for bringing tools back to life and the artful way in which he does so is absolutely incredible. I am certain that this drill, 100 years later, is nicer than the day it left the factory.

No edged tool will work unless it is properly sharpened. A bit advances not by the pressure you put on it, but by the speed at which you turn the bit. If you are needing to exert a lot of effort to advance the bit, it is likely to be dull and in need of a good sharpening. Federico, or better known to me as @mrinfla from Instagram, recently donated 22kg of various files to the Community Toolchest. Included in the package were some of the finest Italian-made iridium auger files on the market. With just a few simple strokes in the right areas, all the auger bits in the Community Toolchest were sharp and ready for service.



TX Heritage auger roll



Beautifully restored eggbeater drill



Community Toolchest boring tools



Sharpening an auger bit



Another view of sharpening an auger bit

Practice makes perfect

Try building a traditional bench with offset pegs and plenty of benchdog holes. After drilling over 50 of these 20mm holes by hand through my 75mm-thick benchtop and 150mm-thick legs, my drilling had much improved and I had Popeye arms for a few weeks to boot! Experiment using a series of squares and reflective objects to find the most effective method for you to drill straight, concise holes. A few well-placed squares, mirrors, or old CDs can help you build precision and muscle memory, and soon you will start to see and 'feel' square as you drill F&C



Drilling benchdog holes is a great exercise

mafell

Quality • Innovation • Performance
Beyond all expectation

PSS3100SE

3.1m Automatic Panel Saw with Scoring Function

Awesome – mind-blowing – technological German innovation. It is difficult to find adjectives to describe the Mafell PSS 100SE Portable Panel Sizing Saw with Pre-Scoring Function and Automatic Forward / Reverse Transmission. Incorporating a near perfect dust control system ensures a clean healthy working environment and virtual perfection is achieved on every cut irrespective of the material. On-site demonstrations on request. Seeing is believing!



WARRANTY 3 THREE YEARS

£1,850.00 EX VAT
£2,220.00 INC VAT
A saving of £210!

Pre-scoring & constant cutting speed guarantee splinter free finish.

Cutting perfection whatever the material. MDF: particle boards: even cement fibre panels (with optional diamond tipped blade)

FREE
Save £229 +VAT

Twin precision crosscutting fence system.

Carriage paid UK mainland only. Offer ends 31st July 2015

NMA AGENCIES LTD

NMATOOLS.CO.UK

Email: info@nmauk.com Tel: 01484 400488

Birds Royd Lane
Brighouse
West Yorkshire
HD6 1LQ



PHOTOGRAPHS BY MARK HARRELL

The saw doctor will see you now

In the third part of this series, Mark Harrell looks at restoring the wooden handle on your vintage saw

Now it's time to restore Grandpa's hopelessly rusted, chipped, paint-spattered Spear & Jackson backsaw handle, which has gathered dust in the workshop for the past 20 years. The horns look like they've survived countless jumps off the workbench and there are more s-rolls along the toothline than a paratrooper's static line before the drop into Operation Market Garden. Believe it or not, this is not a hopeless mission, though now – slipping into our uniquely American patois – this is one butt-ugly saw handle. Let's start by giving this worn-out vet a fresh uniform.



Start by scraping off the paint

Step 1

Scrape off the paint, dead skin cells and other accumulated grime from the past 75 years. An X-Acto knife or safety razor is good for that. You may want to – very – lightly sand down the wood as well with a 3M pad, just to release the accumulated surface compost prior to treating the wood later. Be gentle – you don't want to wipe out the many years of character Grandpa bestowed on this old guy.



Cinch your handle in a wooden clamp and cut a 90° notch along the damage



Trace out the horn outline on your graft wood and cut the squares proud of the trace for length, thickness and width



Secure your handle onto a bench hook or clamp and literally saw off the big chunks to rough form



The restored handle

Step 2

Now cinch your handle in a wooden clamp and cut a 90° notch along the damage. Is it easier to simply lop it off with one clean cut? Sure, if you think end grain alone will keep a glue joint intact. Rather, take the time to make a notch cut, so you'll have both the long grain and end grain securing the graft wood you'll glue on later. Note how we line our wooden clamps with leather. You'll find that leather adds cushioning and friction to the equation and won't mark the handle.

Step 3

Next, trace out the horn outline on your graft wood and cut the squares proud of the trace for length, thickness and width – you'll trim the graft wood to size momentarily. For now, simply cut oversized blocks and match them to the notches. Finesse the blocks to fit as tightly as possible to achieve a practically seamless glue joint. Many fine old English saws were made with elm *(Ulmus procera)*, which will take a stain and blend nicely with a vintage handle, so that's a good choice. When you're satisfied with how the grain lines up, glue the graft wood into place. Rubber bands make great clamps for the asymmetrical glue-up. Gently clean and buff the fasteners while the glue is curing, but remember: the intent here is to make your fasteners and handle look like a very well-preserved antique and not to promote the dazzling brilliance for which only a Sergeant Major from the first Airborne would approve. It's time to call it a night and support your neighbourhood pub while the glue dries.

Step 4

Back at it now in your workshop after a hard day massaging a computer and you're ready for some quality 'self' time: secure your handle onto a bench hook or clamp and literally saw off the big chunks to rough form. Follow up with some paring chisel work and then a rasp to shape your horns into the elegantly figured curves Grandpa's saw had when he bought it new. Think of it as a coarse, medium, fine approach – thank you, Chris Schwarz. A Dremel will work too, but like any corded tool, it's easy to overdo it and mar the piece. As the old adage stipulates – you can always take away, but you can never put back. I prefer the control a quality rasp provides. You can also saw a slit on a dowel and anchor a section of abrasive wrapped around the dowel for shaping the contour along the underside of the horns. Periodically grip the handle to assess how it feels and you'll know how much more to take away at this point.

Step 5

We're ready for finishing, so you can blend the look of the grafted wood with the original handle wood. Try experimenting first with various darker stains on a separate piece of graft wood to find a combination that works for your handle. We most often use a stain marking pen in dark walnut mixed with red oak; the combination frequently does the trick for how we finish vintage saw handle restorations. Sand, stain again, assess and repeat until the handle looks the way you want. Now treat the wood with boiled linseed oil or oil treatment of your preference. You might even buff on some carnauba wax if you really want the old paratrooper to pop like the parade ground veteran he is, now standing proud after generations of neglect.



Using a stain marking pen to blend in the grafted wood with the original wood

Step 6

And you're done! If you've taken your time with the cutting, clamping, shaping and finishing, you will now have a handle with a pretty close approximation of its original look and feel. Moreover, whenever you use the saw, you'll have the satisfaction of knowing that it was you that brought it back to proper form and that Grandpa is toasting your efforts from above. Cheers! F&C

NEW STORE
SALFORD NOW OPEN

Machine Mart

NOW 65 SUPERSTORES NATIONWIDE

WHERE QUALITY COSTS LESS

Clarke 4" BELT/ 6" DISC SANDER

- Dust extraction facility
- 4" x 36" belt tilts & locks 0-90°
- 225mm x 160mm table, tilts 0-90°
- 370w, 230v motor

CS4-6D
£84.99 EX.VAT
£101.99 INC.VAT

Clarke 6" BELT/ 9" DISC SANDER

- Includes stand
- 1 Hp/ 230v/ 1ph motor

CS6-9C
£199.00 EXC.VAT
£238.80 INC.VAT

Clarke TABLE SAWS

LEG STANDS AVAILABLE FOR CTS11 & CTS10D £22.99 EX VAT £27.59 INC VAT

FROM ONLY £69.98 EX.VAT £83.98 INC.VAT

CTS10D

*Moulded base

INCLUDES LEFT & RIGHT TABLE EXTENSION

MODEL	MOTOR	BLADE	EX VAT	INC VAT
CTS800B	600w	200mm	£69.98	£83.98
CTS11*	1500w	254mm	£139.98	£167.98
CTS10D	1500w	254mm	£149.98	£179.98

Clarke MULTI FUNCTION TOOL WITH ACCESSORY KIT

- Great for sawing, cutting, sanding, polishing, chiselling & much more
- 250w motor
- Variable speed

£34.99 EXC.VAT £41.99 INC.VAT

CMFT250

Clarke BANDSAWS

£109.98 EXC.VAT £131.98 INC.VAT

HUGE RANGE IN CATALOGUE & ONLINE

CBS250 INCLUDES STAND

MODEL	MOUNT	MOTOR	THROAT	EX VAT	INC VAT
CL CBS190	Bench	350w	190mm	£109.98	£131.98
CL CBS250	Floor	370w	245mm	£179.98	£215.98

Clarke POWER PLANERS

BLACK & DECKER

FROM ONLY £21.99 EX.VAT £26.39 INC.VAT

- 82mm cutting width

CEP1

MODEL	INPUT POWER	DEPTH OF CUT	EX.VAT	INC.VAT
Clarke CEP1	650W	2mm	£21.99	£26.39
Einhell RT - PL82 ‡	850W	3mm	£49.98	£59.98
B&D KW750K - GB	750W	2mm	£57.99	£69.59

‡ was £65.99 inc.VAT

VAC KING WET & DRY VACUUM CLEANERS

FROM ONLY £47.99 EX.VAT £57.59 INC.VAT

- A range of compact, high performance wet & dry vacuum cleaners for use around the home, workshop, garage etc.

MODEL	MOTOR	CAPACITY WET/DRY	EX. VAT	INC. VAT
CVAC20P	1250W	16/12ltr	£47.99	£57.59
CVAC20SS*	1400W	16/12ltr	£59.98	£71.98
CVAC25SS*	1400W	19/17ltr	£64.99	£77.99
CVAC30SSR*	1400W	24/21ltr	£86.99	£104.39

* SS = Stainless Steel

Clarke 1" BELT & 5" DISC SANDER

- Inc. 2 tilt/lock tables and mitre gauge
- 300w motor

CBS1-5

£59.98 EX.VAT £71.98 INC.VAT

Clarke ELECTRIC POWER FILE CPF13

- Variable belt speed
- Tilting head

*Black & Decker

FROM ONLY £44.99 EX.VAT £53.99 INC.VAT

MODEL	MOTOR	EXC.VAT	INC.VAT
CPF13	400w/230v	£44.99	£53.99
KA900E*‡	350w/230v	£49.98	£59.98

‡ was £63.59 inc.VAT

Clarke INDUSTRIAL ELECTRIC FAN HEATERS DEVIL 6003

- Rugged fan heaters for small to medium sized premises
- Tough steel cabinets
- Adjustable heat output with thermostat

FROM ONLY £37.99 EX.VAT £45.59 INC.VAT

MODEL	HEAT OUTPUT	EX VAT	NOW INC VAT
Devil 6002	0.7-2kW	£37.99	£45.59
Devil 6003‡	1.5-3kW	£49.98	£59.95
Devil 6005	2.5-5kW	£74.99	£89.99
Devil 6009	4.5-9kW	£129.98	£155.98
Devil 6015	5-10-15kW	£189.98	£227.87

‡ was £71.98 inc.VAT

Clarke DISC SANDER (305MM)

- Powerful, bench mounted disc sander
- 900W
- No load disc speed: 1490rpm
- 305mm Disc Diameter (1 x 60 grit sanding disc included)
- Dimensions (LWH): 440x437x386mm
- Weight: 28kg

£119.98 EXC.VAT £143.98 INC.VAT

CDS300B

Clarke STATIC PHASE CONVERTERS

- Run big 3 phase woodworking machines from 1 phase supply
- Variable output power to match HP of motor to be run

ROTARY PHASE CONVERTERS ALSO AVAILABLE

CONVERT 230V 1PH TO 400V 3PH

PC60

FROM ONLY £229.00 EX.VAT £274.80 INC.VAT

MODEL	MAX. MOTOR HP	FUSE	EX VAT	INC VAT
PC20	2Hp	10amps	£229.00	£274.80
PC40	3.5Hp	20amps	£269.00	£322.80
PC60	5.5Hp	32amps	£319.00	£382.80

Clarke JIGSAWS

CJS380

BOSCH Power Tools

FROM ONLY £12.99 EX.VAT £15.59 INC.VAT

*DIY #Professional

MODEL	POWER (W)	DEPTH OF CUT (WOOD/STEEL)	EX VAT	INC VAT
Clarke CJS380*	420w	55/6mm	£12.99	£15.59
Clarke CON750#	750w	80/10mm	£24.99	£29.99
B & D KS600*	450w	60/5mm	£29.98	£35.98
Bosch PST700*	500w	70/4mm	£49.98	£59.98

Clarke QUICK RELEASE ALUMINIUM SASH CRAMPS

LIGHTWEIGHT ALUMINIUM

FROM ONLY £6.99 EX.VAT £8.39 INC.VAT

MODEL	SIZE	EX. VAT	INC. VAT
CHT374	600mm	£6.99	£8.39
CHT375	900mm	£7.99	£9.59
CHT376	1200mm	£9.98	£11.98

Clarke CONTRACTOR 18V PRO CORDLESS DRILL/DRIVERS

- 10mm chuck size
- 2 Speed, Variable control - 0-350/0-1250rpm
- 21 torque settings

FROM ONLY £64.99 EX.VAT £77.99 INC.VAT

2 Batteries

INCLUDES 12 PIECE BIT SET

MODEL	BATTERIES	EXC. VAT	INC. VAT
CON18Ni	2 x Ni-Cd	£64.99	£77.99
CON18Li	2 x Li-Ion	£84.99	£101.99

Clarke CORDLESS DRILL/ DRIVERS PSR18

BOSCH Power Tools

FROM ONLY £34.99 EX.VAT £41.99 INC.VAT

HUGE CHOICE IN-STORE & ONLINE

MODEL	VOLTS	BATTS	EXC. VAT	INC.VAT
CCD180	18v	1	£34.99	£41.99
CCD240	24v	1	£39.98	£47.98
Bosch PSR18	18v	1	£49.98	£59.98

Clarke TABLE SAW CTS13L

- Powerful 1800W Motor
- 5700rpm No Load Speed
- Laser Guide for accurate cutting
- With folding legs and wheels - Large 930 x 640mm Table

PRICE CUT £229.98 EX.VAT £275.98 INC.VAT WAS £287.98 INC.VAT

Clarke ENGINEER'S DRILL PRESS

- Tables tilt 0-45° left & right
- Depth gauge
- Chuck guards

FROM ONLY £59.98 EX.VAT £71.98 INC.VAT

MODEL	WATTS/ SPEEDS	EXC.VAT	INC.VAT
CDP5EB	350/5	£59.98	£71.98
CDP101B	245/5	£79.98	£95.98
CDP151B	300/5	£106.99	£128.39
CDP10B	370/12	£169.98	£203.96
CDP301B	510/12	£199.98	£239.98
CDP451F	510/16	£239.98	£287.98
CDP501F	980/12	£429.00	£514.80

B=Bench mounted
F=Floor standing

Clarke CONTRACTOR BELT SANDERS

Clarke

- Ideal for surface removal, sanding and finishing

Makita

ABRASIVE SANDING BELTS IN STOCK

BS1

FROM ONLY £29.98 EX.VAT £35.98 INC.VAT

MODEL	WATT	M/MIN	EX VAT	INC VAT
Clarke BS1	900w	380	£29.98	£35.98
Clarke CBS2	1200w	480	£69.98	£83.98
Makita 9911	650w	75-270	£94.99	£113.99

Clarke SHEET SANDERS

CON300

FROM ONLY £12.99 EX.VAT £15.59 INC.VAT

*110V in stock

MODEL	SHEET SIZE	MOTOR	EX VAT	INC VAT
COS200	190X90mm	150w	£12.99	£15.59
CON300	230X115mm	330w	£29.98	£35.98
Makita BO455*	112X102mm	200w	£54.99	£65.99

Clarke DRILL BIT SHARPENER CBS16

- Great for 3mm to 10mm HSS drill bits
- 70W motor
- Drill bit guide ensures sharpening at the correct angle
- Saves cost of new drills

£21.99 EX.VAT £26.39 INC.VAT

Clarke RANDOM ORBITAL SANDER CROS1

£27.99 EX.VAT £33.59 INC.VAT

- For sanding & polishing
- 125mm diameter sanding discs
- 4000-11000 opm

INC 5 DISCS

BISCUIT JOINER

- 860W Motor
- 11000rpm Operating Speed
- 14mm Cutting Depth

£49.98 EX.VAT £59.98 INC.VAT

BJ900

Clarke PORTABLE THICKNESSER

- Max thickness capacity 130mm
- Planing depths adjustable from 0-2.5mm
- Powerful 1250w motor
- 8000rpm no-load speed

£179.98 EX.VAT £215.98 INC.VAT

CPT250

Clarke 1000MM VARIABLE SPEED WOOD LATHE

CWL1000V

SUPPLIED WITH ROBUST STEEL STAND

£239.00 EX.VAT £286.80 INC.VAT

- Large 350mm turning capacity
- Variable speed
- Lockable tailstock
- High quality cast iron build

Clarke 13" MINI WOOD LATHE

£129.98 EX.VAT £155.98 INC.VAT

CWL325V

- Ideal for enthusiasts/ hobbyists with small workshops
- 325mm distance between centres
- 200mm max. turning capacity (dia)
- 0.2Hp motor

Clarke BOLTLESS SHELVING BENCHES

- Simple fast assembly in minutes using only a hammer

FROM ONLY £29.98 EX.VAT £35.98 INC.VAT

SAVE 10% WHEN YOU BUY ANY MIX OF 5 FROM THIS RANGE SAVE AT LEAST £17.99 INC.VAT

CHOICE OF 5 COLOURS RED, BLUE, BLACK, SILVER & GALVANISED STEEL

ALSO EXTRA WIDE INDUSTRIAL UNITS AVAILABLE

150 KG PER SHELF (evenly distributed) Strong 9mm fibreboard shelves

350 KG PER SHELF (evenly distributed) Strong 12 mm fibreboard shelves

MODEL	SHELF DIMS WxDxH(mm)	EX VAT	INC VAT
150Kg	800x300x1500	£29.98	£35.98
350Kg	900x400x1800	£49.98	£59.98

Clarke PLANERS & THICKNESSERS

CPT800

- Ideal for DIY & Hobby use
- Dual purpose, for both finishing & sizing of timber (CP-6 planer only)

FROM ONLY £139.98 EX.VAT £167.98 INC.VAT

MODEL	MOTOR	MAX THICK. CAPACITY	EXC. VAT	INC. VAT
CP-6	1100w	*	£139.98	£167.98
CPT600	1250w	120mm	£169.98	£203.98
CPT800	1250w	120mm	£189.98	£227.98
CPT1000 NEW	1500w	120mm	£269.98	£323.98

Clarke WOODWORKING LATHES

CWL1000

3 PCE CHISEL SET INCLUDED WITH CWL1000

SEE CATALOGUE FOR ACCESSORIES

MODEL	CENTRE TO CENTRE (mm)	TURNING CAP.	TURNING SPEEDS	EX VAT	INC VAT
CWL1000	1016	350mm	4	£114.99	£137.99
CWL12D	940	305mm	5	£189.98	£227.98

FROM ONLY £114.99 EX.VAT £137.99 INC.VAT

23228(LH)



Clarke MORTISING MACHINE CBM1B

£144.99 EXC.VAT £173.99 INC.VAT

- Accurately creates deep square recesses
- Table size 150 x 340mm
- Maximum chisel cap.76mm
- Robust cast iron base & column ensures stability & accuracy
- 95mm depth of cut

"It is fast and accurate with a good solid feel...Excellent value for money, I'm really pleased with it." See www.machinemart.co.uk

CHISELS AVAILABLE FROM £7.99 EX VAT £9.59 INC VAT



visit machinemart.co.uk FOR OVER 15,000 PRODUCTS INCLUDING NEW Xtra SPECIALIST PRODUCTS

CLICK & COLLECT

NEW 500 PAGE CATALOGUE Over 1500 PRICE CUTS & NEW PRODUCTS



GET YOUR FREE COPY NOW!

- IN-STORE
- ONLINE
- PHONE

0844 880 1265

Clarke WOODWORKING VICES

FROM ONLY £13.49 EX.VAT £16.19 INC.VAT

Record WV7

MODEL	MOUNTING	JAW (WIDTH/OPENING /DEPTH)mm	EXC.VAT	INC.VAT
Clarke CHT152	Bolted	150/152/61	£13.49	£16.19
Stanley Multi Angle	Clamped	72/60/40	£16.99	£20.39
Record V75B	Clamped	75/50/32	£18.99	£22.79
Clarke WV7	Bolted	180/205/78	£24.99	£29.99

Clarke 10" SLIDING MITRE SAW

- For fast, accurate cross, bevel & mitre cutting in most hard & soft woods
- 1800w motor
- Laser guide

£129.98 EXC.VAT £155.98 INC.VAT

CMS10S2

MITRE SAWS

Einhell UK

Makita

FROM ONLY £54.99 EXC.VAT £65.99 INC.VAT

TH-SM 2534

Quality Range of Mitre saws and blades available

MODEL	BLADE DIA BORE (mm)	MAX CUT DEPTH/CROSS	EX. VAT	INC. VAT
Einhell TH-MS 2112	210/30	55/120mm	£54.99	£65.99
Fury 3	210/25.4	60/200mm	£119.98	£143.98
Einhell TH-SM2534	250/30	75/340mm	£159.98	£191.98
Makita LS1040	260/30	95/130mm	£199.98	£239.98

Clarke DUST EXTRACTOR/ CHIP COLLECTORS

£119.98 EXC.VAT £143.98 INC.VAT

METABO ALSO AVAILABLE

- Powerful 750w motor
- 56 litre bag capacity
- Flow rate of 850M3/h

MODEL	MOTOR	FLOW RATE	BAG CAP.	EX VAT	INC VAT
CDE35B	750w	850 M3/h	56Ltrs	£119.98	£143.98
CDE7B	750w	850 M3/h	114Ltrs	£139.98	£167.98

Clarke QUALITY CAST IRON STOVES

20 GREAT STYLES IN STOCK

LARGE & XL MODELS IN STOCK

FLUES, COWLS & ACCESSORIES IN STOCK

POT BELLY

PRICE CUT £89.98 EXC.VAT £107.98 INC.VAT WAS £113.98 INC.VAT

11.8kW

6.9kW

BARREL £209.00 EXC.VAT £250.80 INC.VAT

Clarke MITRE SAW STAND

CFMSS1

£64.99 EXC.VAT £77.99 INC.VAT

- Suitable for most sizes/makes of saw
- Inc. outriggers & rollers

Clarke WHETSTONE SHARPENER

CWS200

- Produces accurate razor sharp cutting edges on chisels, scissors, tools etc
- 120w motor
- Grinding disc 200mm
- Wet bath
- Leather honing wheel

£109.98 EXC.VAT £131.98 INC.VAT

Clarke ROTARY TOOL KIT

CRT40

£29.98 EXC.VAT £35.98 INC.VAT

Kit includes:

- Height adjustable stand with clamp
- Rotary tool
- 1m flexible drive
- 40x accessories/consumables

Clarke DUST EXTRACTOR CDE1000

- 50 litre tank capacity
- 183 m^3/h flow rate
- 1000W input wattage

OTHER MODELS AVAILABLE

£99.98 EXC.VAT £119.98 INC.VAT

Clarke CIRCULAR SAWS

FROM ONLY £34.99 EXC.VAT £41.99 INC.VAT

- Great range of DIY and professional saws
- Ideal for bevel cutting (0-45°)

CON185

*Includes laser guide

MODEL	MOTOR	MAX CUT 90/45 (mm)	EXC.VAT	INC.VAT
Clarke CCS185B	1200W	65/44	£34.99	£41.99
Clarke CC52	1300W	60/45	£59.98	£71.98
Clarke CON185*	1600W	60/40	£59.98	£71.98

Clarke DOVETAIL JIG

- Simple, easy to set up & use for producing a variety of joints
- Cuts work pieces with a thickness of 8-32mm
- Includes a 1/2" comb template guide & holes for bench mounting

PRICE CUT £54.99 EXC.VAT £65.99 INC.VAT WAS £71.98 inc.VAT

CDTJ12 Router not included

Clarke 6" BENCH GRINDER WITH SANDING BELT

£49.98 EXC.VAT £59.98 INC.VAT

CBG6SB

- For sanding/shaping wood, plastic & metal
- Supplied with coarse grinding wheel & sanding belt

Clarke BENCH GRINDERS & STANDS

- Stands come complete with bolt mountings and feet anchor holes

6" & 8" AVAILABLE WITH LIGHT

FROM ONLY £27.99 EXC.VAT £33.59 INC.VAT

STAND AVAILABLE FROM ONLY £41.99 EX.VAT £50.39 INC.VAT

CBG8W features 8" whetstone & 6"drystone. # With sanding belt

MODEL	DUTY	WHEEL DIA.	EX VAT	INC VAT
CBG6RP	DIY	150mm	£27.99	£33.59
CBG6RZ	PRO	150mm	£37.99	£45.59
CBG6RSC	HD	150mm	£47.99	£57.59
CBG6SB#	PRO	150mm	£49.98	£59.98
CBG6RWC	HD	150mm	£54.99	£65.99
CBG8W (wet)	HD	150/200mm	£55.99	£67.19

airmaster TURBO AIR COMPRESSORS

- Superb range ideal for DIY, hobby & semi-professional use

HUGE RANGE OF AIR TOOLS IN STOCK

CLARKE 8MM AIR HOSE FROM ONLY £5.99 EX VAT £7.19 INC VAT

FROM ONLY £79.98 EXC.VAT £95.98 INC.VAT

8/250

MODEL	MOTOR	CFM	TANK	EX VAT	INC VAT
Tiger 8/250	2Hp	7.5	24ltr	£79.98	£95.98
Tiger 7/250	2 Hp	7	24ltr	£89.98	£107.98
Tiger 8/36	1.5 Hp	6.3	24ltr	£109.98	£131.98
Tiger 11/250	2.5Hp	9.5	24ltr	£119.98	£143.98
Tiger 8/510	2Hp	7.5	50ltr	£129.98	£155.98
Tiger 11/510	2.5Hp	9.5	50ltr	£149.98	£179.98
Tiger 16/510	3 Hp	14.5	50ltr	£219.98	£263.98
Tiger 16/1010	3 Hp	14.5	100ltr	£269.98	£323.98

Clarke ROUTERS

BOSCH

CR1C

FROM ONLY £39.98 EX.VAT £47.98 INC.VAT

ACCESSORIES IN STOCK

* DIY

MODEL	MOTOR (W)	PLUNGE (mm)	EX VAT	INC VAT
CR1C*	1200	0-50	£39.98	£47.98
Bosch POF1400ACE	1400	0-55	£74.99	£89.99

Clarke CONTRACTOR CR2 ROUTER

£109.98 EX.VAT £131.98 INC.VAT

- Powerful heavy duty machine ideal for trade use
- Variable speed control from 7,400-21, 600 rpm
- 2100w motor
- 0-60mm plunge depth.

CR3 Router with 15 Piece Bit Set also available only £94.99 £113.99

INCLUDES 15 PIECE SET WORTH OVER £20

Clarke HARDWOOD WORKBENCH

- Includes bench dogs and guide holes for variable work positioning
- 2 Heavy Duty Vices
- Large storage draw
- Sunken tool trough
- LxWxH 1520x620x855mm

CHB1500

£129.98 EXC.VAT £155.98 INC.VAT

Clarke TABLE SAW WITH EXTENSION TABLES (250mm)

CTS14

- Ideal for cross cutting, ripping, angle and mitre cutting
- Easy release / locking mechanism for table extensions
- 0-45° tilting blade
- Cutting depth: 72mm at 90° / 65mm at 45°
- 230V/50Hz, Motor: 1800W, No load speed: 4700rpm

NEW

£119.98 EXC.VAT £143.98 INC.VAT

Shown with optional leg kit CLK5 £22.99 exc.VAT £27.59 inc.VAT

Clarke SCROLL SAWS

FROM ONLY £64.99 EXC.VAT £77.99 INC.VAT

- 120w, 230v motor
- 50mm max cut thickness
- 400-1,700rpm variable speed
- Air-blower removes dust from cutting area

CSS16V

MODEL	MOTOR	SPEED RPM	EX VAT	INC VAT
CSS400B	85w	1450	£64.99	£77.99
CSS16V	120w	400-1700	£79.98	£95.98
CSS400C*	90w	550-1600	£99.98	£119.98

* Includes flexible drive kit for grinding/polishing/sanding

Clarke ROUTER TABLE

CRT-1

Router not included

BEST SELLER

- Converts your router into a stationary router table
- Suitable for most routers (up to 155mm dia. Base plate)

£56.99 EX.VAT £68.39 INC.VAT

EVOLUTION 255mm MULTI-PURPOSE TABLE SAWS

FURY 5 ONLY £149.98 EX.VAT £179.98 INC.VAT WAS £191.98 INC.VAT

MODEL	MAX DEPTH CUT 45°	MAX DEPTH CUT 90°	TABLE SIZE (mm)	EXC. VAT	INC. VAT
FURY5*	54mm	73mm	625x444	£149.98	£179.98
RAGE5‡	55mm	79mm	868x444	£269.00	£322.80

*FURY power: 1500w (110V available)
‡RAGE power: 1800w/230V (110V available)
table extensions included

* was £191.98 inc.VAT ‡ was £334.80 inc.VAT

Clarke 5PCE FORSTNER BIT SET

- Contains 15, 20, 25, 30 & 35mm bits
- Titanium nitride coated for improved cutting finish

£9.98 EXC.VAT £11.98 INC.VAT

CHT365

Machine Mart Xtra

MUCH MORE WOODWORKING ONLINE

VISIT YOUR LOCAL SUPERSTORE

OPEN MON-FRI 8.30-6.00, SAT 8.30-5.30, SUN 10.00-4.00

*NEW STORE

BARNSLEY Pontefract Rd, Barnsley, S71 1EZ	01226 732297	**EXETER** 16 Trusham Rd. EX2 8QG	01392 256 744
B'HAM GREAT BARR 4 Birmingham Rd.	0121 358 7977	**GATESHEAD** 50 Lobley Hill Rd. NE8 4YJ	0191 493 2520
B'HAM HAY MILLS 1152 Coventry Rd, Hay Mills	0121 7713433	**GLASGOW** 280 Gt Western Rd. G4 9EJ	0141 332 9231
BOLTON 1 Thynne St. BL3 6BD	01204 365799	**GLOUCESTER** 221A Barton St. GL1 4HY	01452 417 948
BRADFORD 105-107 Manningham Lane. BD1 3BN	01274 390962	**GRIMSBY ELLIS WAY,** DN32 9BD	01472 354435
BRIGHTON 123 Lewes Rd, BN2 3QB	01273 915999	**HULL** 8-10 Holderness Rd. HU9 1EG	01482 223161
BRISTOL 1-3 Church Rd, Lawrence Hill. BS5 9JJ	0117 935 1060	**ILFORD** 746-748 Eastern Ave. IG2 7HU	0208 518 4286
BURTON UPON TRENT 12a Lichfield St. DE14 3QZ	01283 564 708	**IPSWICH** Unit 1 Ipswich Trade Centre, Commercial Road	01473 221253
CAMBRIDGE 181-183 Histon Road, Cambridge. CB4 3HL	01223 322675	**LEEDS** 227-229 Kirkstall Rd. LS4 2AS	0113 231 0400
CARDIFF 44-46 City Rd. CF24 3DN	029 2046 5424	**LEICESTER** 69 Melton Rd. LE4 6PN	0116 261 0688
CARLISLE 85 London Rd. CA1 2LG	01228 591666	**LINCOLN** Unit 5. The Pelham Centre. LN5 8HG	01522 543 036
CHELTENHAM 84 Fairview Road. GL52 2EH	01242 514 402	**LIVERPOOL** 80-88 London Rd. L3 5NF	0151 709 4484
CHESTER 43-45 St. James Street. CH1 3EY	01244 311258	**LONDON CATFORD** 289/291 Southend Lane SE6 3RS	0208 695 5684
COLCHESTER 4 North Station Rd. CO1 1RE	01206 762831	**LONDON** 6 Kendal Parade, Edmonton N18	020 8803 0861
COVENTRY Bishop St. CV1 1HT	024 7622 4227	**LONDON** 503-507 Lea Bridge Rd. Leyton, E10	020 8558 8284
CROYDON 423-427 Brighton Rd, Sth Croydon	020 8763 0640	**LONDON** 100 The Highway, Docklands	020 7488 2129
DARLINGTON 214 Northgate. DL1 1RB	01325 380 841	**LUTON** Unit 1, 326 Dunstable Rd, Luton LU4 8JS	01582 728 063
DEAL (KENT) 182-186 High St. CT14 6BQ	01304 373 434	**MAIDSTONE** 57 Upper Stone St. ME15 6HE	01622 769 572
DERBY Derwent St. DE1 2ED	01332 290 931	**MANCHESTER ALTRINCHAM** 71 Manchester Rd. Altrincham	0161 9412 666
DONCASTER Wheatley Hall Road	01302 245 999	**MANCHESTER OPENSHAW** Unit 5, Tower Mill, Ashton Old Rd	0161 223 8376
DUNDEE 24-26 Trades Lane. DD1 3ET	01382 225 140	**MANCHESTER SALFORD*** 209 Bury New Road M8 8DU	0161 241 1851
EDINBURGH 163-171 Piersfield Terrace	0131 659 5919	**MANSFIELD** 169 Chesterfield Rd. South	01623 622160
		MIDDLESBROUGH Mandale Triangle, Thornaby	01642 677881
		NORWICH 282a Heigham St. NR2 4LZ	01603 766402
		NOTTINGHAM 211 Lower Parliament St.	0115 956 1811
		PETERBOROUGH 417 Lincoln Rd. Millfield	01733 311770
		PLYMOUTH 58-64 Embankment Rd. PL4 9HY	01752 254050
		POOLE 137-139 Bournemouth Rd. Parkstone	01202 717913
		PORTSMOUTH 277-283 Copnor Rd. Copnor	023 9265 4777
		PRESTON 53 Blackpool Rd. PR2 6BU	01772 703263
		SHEFFIELD 453 London Rd. Heeley. S2 4HJ	0114 258 0831
		SIDCUP 13 Blackfen Parade, Blackfen Rd	0208 3042069
		SOUTHAMPTON 516-518 Portswood Rd.	023 8055 7788
		SOUTHEND 1139-1141 London Rd. Leigh on Sea	01702 483 742
		STOKE-ON-TRENT 382-396 Waterloo Rd. Hanley	01782 287321
		SUNDERLAND 13-15 Ryhope Rd. Grangetown	0191 510 8773
		SWANSEA 7 Samlet Rd. Llansamlet. SA7 9AG	01792 792969
		SWINDON 21 Victoria Rd. SN1 3AW	01793 491717
		TWICKENHAM 83-85 Heath Rd.TW1 4AW	020 8892 9117
		WARRINGTON Unit 3, Hawley's Trade Pk.	01925 630 937
		WIGAN 2 Harrison Street, WN5 9AU	01942 323 785
		WOLVERHAMPTON Parkfield Rd. Bilston	01902 494186
		WORCESTER 48a Upper Tything. WR1 1JZ	01905 723451

OPEN 7 DAYS

3 EASY WAYS TO BUY...

IN-STORE 65 SUPERSTORES

ONLINE www.machinemart.co.uk

MAIL ORDER 0115 956 5555

CLICK & COLLECT

Minimum call charges from a BT landline are 5p/min to 0844. Calls from mobiles and other networks may vary.
For security reasons, calls may be monitored. All prices correct at time of going to press. We reserve the right to change products and prices at any time. All offers subject to availability, E&OE.



PHOTOGRAPH © THE WALLACE COLLECTION, LONDON

Writing table by John Webb

Paintings in wood

Yannick Chastang looks at the tools and techniques used by 18th-century craftsmen to create masterpieces in marquetry

History books about design are generally full with the names of inventors and creative thinkers that have made an impact on contemporary culture. Some, unwittingly, have become synonymous with a particular object, like the Hoover, for example, while others are associated more with a particular process. André-Charles Boulle (1642–1732) is one such creative genius who has given his name to a style of decorative application that has been the epitome of sophistication and craftsmanship for more than three centuries. The technique attributed to him allows the most intricate of designs to be cut and matched from contrasting materials and laid onto a surface for decorative effect.

The process remains a viable option today and in some instances it is the only way to replicate this style of work with any degree of authenticity.

Although the Boulle technique was still being used, Parisian marqueteurs undertaking floral marquetry from the second quarter of the 18th century onwards used a different technique, which had its origins in intarsia. Literature on furniture manufacture techniques and, in particular, marquetry, is rare during the 17th century and for much of the 18th. However, during the second half of the 18th century, many more books were written and published on these subjects. The cabinetmaker's craft was discussed in detail in *Diderot's Encyclopédie* of 1751–80 and in 1772 the carpenter André-Jacob Roubo published a major work on the subject, *L'Art du Menuisier.* Roubo's work remains the best and most comprehensive book on 18th-century cabinetmaking, even though some modern cabinetmakers have criticised the fact that not all the recipes he quotes can be successfully replicated. Published during one of the richest periods of French marquetry, the techniques Roubo discusses include many of the most important used by 18th-century cabinetmakers and marqueteurs. He provides a detailed discussion of what may be called the advanced inlay technique.

Advanced inlay

This technique was used to produce the marquetry made by such master-craftsmen as Jean-Pierre Latz (c. 1691–1754), Jean-François Oeben (1721–63), Jean-Henri Riesener (1734–1806) and Jean-François Leleu (1729–1807). Analysis and conservation work on furniture by these makers have revealed distinctive tool marks and outline drawings cut into the carcass below the marquetry. Further evidence of the use of this inlay technique is found in a painting representing an English marquetry workshop of the late 18th century. Executed by the Swedish painter Elias Martin during his travels in England between 1768 and 1780, the painting depicts a craftsman cutting a piece of wood with a fretsaw while another gouges out a cavity in a table top using a small inlay knife. Although it is unlikely that all 18th-century Parisian cabinetmakers used this technique, it is safe to assume that the majority did. Many were of foreign, particularly Flemish, origin. They lived and worked in the same area of Paris around the Faubourg Saint Antoine and undertook their apprenticeships in the same workshops. Despite the fact that this technique is closer to intarsia than to Boulle marquetry, this late 18th-century veneered decoration is also generally described as marquetry.



Inlaying elements using a one-handed knife with a hammer, as represented in the c. 1770 painting by Elias Martin showing an English marquetry workshop, now at the Swedish National Art Museum in Stockholm

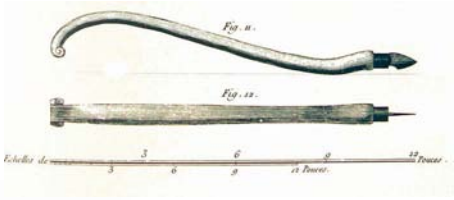
Floral decoration

On the back of the roll-top desk – bureau à cylinder – made around 1770 for the comte d'Orsay – now in The Wallace Collection, London – Riesener has depicted a bunch of lilies taken directly from an engraving by Louis Tessier. A modern reproduction of this detail has been made, using the technique described by Roubo, in order to illustrate the process. The marqueteur would have made a tracing of the Tessier engraving, copying the detail of each individual flower and leaf. Just as in the Boulle marquetry technique, this tracing would have been transferred or glued onto a piece of veneer, which would then have been

PHOTOGRAPHS BY YANNICK CHASTANG, UNLESS OTHERWISE STATED



Positioning and marking the individual flowers and elements on the plain background veneer



Shoulder knife in *L'art du Menuisier* by Andre-Jacob Roubo, c. 1772–74



Inlaying the flowers into the background veneer using the shoulder knife



PHOTOGRAPH © THE WALLACE COLLECTION, LONDON

Cabinet, attributed to André-Charles Boulle

prepared in the same way. Again as with Boulle, a stock of ready-cut finished flowers would have been built up, the 1763 inventory of Oeben's workshop, for example, recording a chest of pre-cut marquetry flowers.

When a piece of furniture was to be veneered with floral decoration, the first stage would involve gluing a sheet of background veneer onto a completed solid wood carcass. A simple drawing of the final composition would then be outlined on the veneer to assist with the placement of the flowers and marquetry elements. The flowers and marquetry elements selected for the design would be placed on top of the background veneer and carefully marked out into the veneer using a scriber. Turning to his inlay knife, with its long handle mounted with a sharp blade, the marqueteur would cut deep into the background veneer along the scriber lines. This is the process that can create the distinctive marks on the solid wood carcass. The cut-out portion of the background veneer would then be removed, creating a cavity into which the marquetry elements would be fitted and glued. Each flower and other decorative element was individually inlaid using this technique. The top of the piece of furniture would then be sanded, engraved if necessary, and a finish applied.



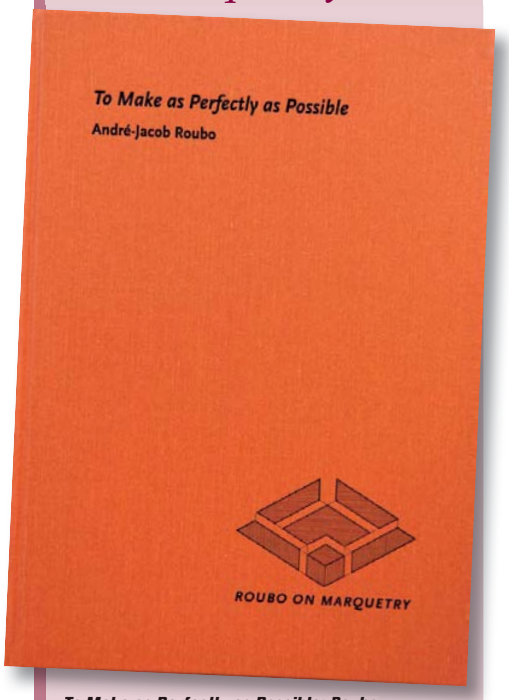
PHOTOGRAPH © THE WALLACE COLLECTION, LONDON

Secretaire by Jean-Henri Riesener

Advantages and disadvantages of the technique

Despite its time-consuming nature, this technique was preferred to the Boulle technique during the second half of the 18th century. Its advantages, besides those of technique, lay in the complete liberty of interpretation of the marquetry composition which it afforded the marqueteur and the exactness with which each marquetry element fitted into its space. A flower or leaf could easily be added or left out depending on the maker's whim. Such freedom allowed the resulting marquetry composition to be adapted, often superbly so, to the piece of furniture with its bronze mounts and other decorative features. On the other hand, this technique only allowed one marquetry composition to be completed at a time. With intensive practice and long experience the 18th-century craftsmen produced high quality marquetry very quickly. However, the industrial revolution provided the impetus in the next century for the development of faster and cheaper techniques which would alter the course of standard marquetry practice. There are a few rare examples of 19th-century marquetry using inlay, but today the technique is virtually extinct. F&C

To Make as Perfectly as Possible: Roubo on Marquetry



***To Make as Perfectly as Possible: Roubo on Marquetry*, by Lost Art Press**

To Make as Perfectly as Possible: Roubo on Marquetry *is the first English-language translation of the most important woodworking book of the 18th century. A team of translators, writers, woodworkers, editors and artists worked more than six years to bring this first volume of A.J. Roubo's work to an English audience. While the title of this work implies that it is about marquetry alone, that is not the case.* To Make as Perfectly as Possible *covers a wide range of topics of interest to woodworkers who are interested in hand-tool woodworking or history. In addition to veneer and marquetry, this volume contains sections on grinding, sharpening, staining, finishing, wood selection, a German workbench, clock-case construction, engraving and casting brasses. But most of all, this book provides a window into the woodworking world of the 18th century, a world that is both strangely familiar and foreign.*

Published by Lost Art Press and available from Classic Hand Tools

ISBN: *9780985077754*
Price: *£34.50*
Contact: *Classic Hand Tools*
Web: *www.classichandtools.com*

ISSUE 2 ON SALE NOW

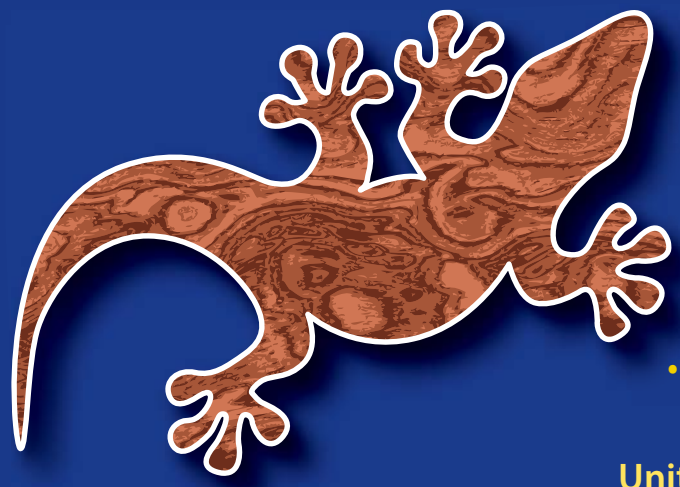
A new magazine for woodworkers

More step-by-step guides, more features, more tech, more pages – in fact, more of everything you like!



ISSUE 2 ON SALE NOW

Exotic Hardwoods UK Ltd



We specialise in supplying quality exotic hardwoods for:

- wood turners
- snooker & pool cue makers
- longbow makers
- guitar & musical instrument makers
- antique furniture restorers

Unit 3 Bowden Hey Road,
Chapel en le Frith, High Peak, SK23 0QZ

Contact us today on 01298 815338

www.exotichardwoodsukltd.com

exotic hardwoods uk

Wood Workers Workshop

01684 594683
www.woodworkersworkshop.co.uk
The Threshing Barn, Welland Road,
Upton upon Severn, Worcestershire, WR8 0SN



THE VERY BEST WOODWORKING TOOLS

Sourced by woodworkers for woodworkers

Quality tools from the finest UK, US & Canadian manufacturers

Thomas Flinn & Co.

Saw & Hand Tool Manufacturer
Sheffield, England



The UK's last remaining traditional saw manufacturers.

Now also manufacturing Clifton Planes!

Garlick E.T. ROBERTS & LEE PAX CLIFTON

www.flinn-garlick-saws.co.uk
orderonline@flinn-garlick-saws.co.uk
Tel: 0114 2725387



PHOTOGRAPHS BY FRANCISZEK DE SAGE

The tea caddy and the box, which was made to house it

When conservation meets making

Franciszek de Sage shows how non-interventive techniques can be used to conserve a precious original piece

This project is an example of a preventive conservation. It didn't involve work on the actual tea caddy, but only making a box for it, in which the original piece would be kept. When the tea caddy arrived in the West Dean workshop, it had a badly twisted lid with one of the corners lifting up to 9mm. Unfortunately, soon after the treatment to straighten the lid, which at the beginning seemed to be successful, the corner started to raise back again. My tutor suggested the idea of making a box, which could be used to put continuous pressure on the lifted lid, but could also be disguised to be a facsimile of the object. This project demonstrates a concept that could be useful in other situations, where a decorative housing is required to keep an object on display.

Design

In the design process of the box my main concern was function: pressure on a warped panel and an environment of fluctuating humidity can help to flatten the twisted lid. Second was safe and comfortable handling, and finally, the aesthetics of the box, all of which had to be taken into consideration. Magnets solved the problem of closing the box as they allowed for easy access to the original piece, without any unnecessary obstacles, i.e., opening a lock with a key, which could easily be lost.

To allow easy access to the tea caddy the front and sides of the box drop down – only the bottom and backboard are fixed. All vertical joints in the box are mitred. The fact I used mitred sides influenced the idea of how the piece could be finished. As none of the sides have fixed joints, it was possible to apply photographs of the actual tea caddy on the box's side panels. This way, the idea to not overshadow the true hero – the tea caddy – was achieved, and the box could stay only a functional piece.



The lid of the tea caddy is put under continuous pressure ➤

Making the box

As a substrate for the box, I used MDF boards and to make them look more pleasing to the eye, they were veneered. When light-coloured Honduran mahogany (*Swietenia macrophylla*) was chosen, the boards were veneered on both sides using a vacuum system. It was crucial that the boards would stay dead flat after veneering, otherwise the open mitre joints wouldn't close properly. The first attempt at using PVA glue was unsuccessful, with ends of the 300mm long veneered board cupping and twisting over 1mm. Presumably the problem was the water content in the glue, causing shrinkage of the veneers. Because of the irregular density of the wood, shrinkage created uneven forces that led to cupping and twisting of the boards. As a solution, I used water-free West System Epoxy Resin.

Mitred edges of the sides were also veneered to cover the MDF. I made special jigs allowing easy and comfortable clamping when veneering.

I decided to use neodymium iron boron magnets to get the right amount of pull to keep the lid of the tea caddy down. In total, 14 magnets – size 5mm dia./5mmA – were put in: seven in the lid, seven in the case, with each pair creating 0.8kg pull to make a total pull of 5.6kg. The amount needed for the pull was checked before, simply by putting small weights on top of the tea caddy lid until it went flat. The magnets are glued in drilled slots with acrylic resin Paraloid B-72.



Veneering mitred edges



A sheet of Perspex stops the lid from sticking to the original surface of the tea caddy



A small collar is stopping the sides of the box from dropping down while closed

I fitted the bottom of the lid with a sheet of Perspex. It was added to protect the surface of the tea caddy from sticking to the inner surface of the lid of the box while being pressed down. Lipping in English holly (*Ilex spp.*) was made slightly wider on the lid than on the case to help opening the lid. It is widest at the corners, suggesting to the user a safe way of opening – with both hands holding the box and pushing the corners of the lid with the thumbs.

For easier handling, I fixed the mitred dropping sides with small magnets – with a pull of 0.12kg and size 3mm dia./1mmA. This way, they are able to remain in a vertical position without any help, otherwise it could be hard to hold three sides closed while trying to put the lid down. The sides of the box do not drop down while it is closed thanks to a small collar, also made of Honduran mahogany, around all sides of the case. It is glued in the groove inside the lid, flush with the rest of the surface.

Box interior

Inside the box, at the bottom board, I inserted four square mahogany blocks with shallow holes drilled in them. When the tea caddy is put into the box, the little bun feet sit in these holes. This has several functions: firstly, because the tea caddy doesn't sit flat on a surface, each hole was drilled to a specific depth, which prevents the caddy from rocking; secondly, as the caddy has a set place, it is always pressed with the same amount of force; and finally, when the box is closed, the tea caddy is locked into place, which allows for safe transportation from one place to another.



Small magnets are fitted in the side's edges



Feet sitting in shallow holes prevent the tea caddy from rocking



The tea caddy sitting in its purpose-made box

Finishing

Finally, the box was finished with archival-quality photographs of the tea caddy glued on each side. After several tests, I decided to use PVB in acetone – 15% w/v solution – as most appropriate. It has shown enough strength to bond paper to wood and, because of the fast evaporation rate of acetone, didn't damage the photographs. The final stage was to apply brass bun feet similar to the ones on the real tea caddy.

Conclusion

This project shows well the difference between conservation and restoration. When all non-interventive treatment methods had failed and the lid of the tea caddy was still raising, I had to look for different solutions. The standard restoration practice would be to peel off the veneer from the top panel of the lid and then glue it on a new substrate, or at least back the panel with cross grain battens. All that would mean removing a lot of original material. Making an extra box shows more of a conservational approach, where the most important aspect is to use non-interventive techniques. The piece is now well protected and further degradation shouldn't occur. F&C



The tea caddy sitting in the new box with one of the sides down



Wooden worktops...

...love TopOil

NEW TopOil Satin 3028

The ultimate protection for your wooden worktop

- Resistant to common stains: wine; beer; drinks and fruit juice
- Will not crack, peel or blister
- Highest coverage of any oil on the market
- Water repellent and dirt resistant



Call or visit the web for stockists.

+44 (0)1296 481 220
www.osmouk.com

osmo®

AIRPRESS DEVELOPMENTS LTD





Veneer & Laminate all your flat and curved panels with the UK's No.1 Vacuum Pressing Systems











Call us for advice and information or see our full range of Vacuum Presses on our website:
www.airpress.co.uk
Email: info@airpress.co.uk Tel: + 44 (0)1725514426

www.prindustrial.co.uk AND FFX PRESENT

TOOLSHOW2015

25th & 26th July www.toolshow2015.co.uk



AMERICAN EXPRESS COMMUNITY STADIUM, BRIGHTON, BN1 9BL

FREE ENTRY • FREE PARKING • FREE DEMONSTRATIONS

mafell BOSCH FESTOOL DEWALT STANLEY BAHCO Kuny's Makita trend
Snickers Le Coq Sportif TENGTOOLS BLÅKLÄDER BOSTITCH triton STABILA IRWIN KÄRCHER scrutis TOUGHBUILT Kreg veritas
Robert Sorby REMS scheppach VANTAINER FLEX FISKARS charnwood Hultafors Wera treatex

www.toolshow2015.co.uk Get online to register for updates



PHOTOGRAPHS BY CHARLES MAK

Taming the Domino joiner

Charles Mak shares some proven techniques and tips to get more out of the Domino joiner

The joinery on the cabinet shown above is completed using the Domino joiner.

I use the Domino joiner a lot because it is fast, accurate and assembly-friendly. The Domino joiner has simplified the whole process of cutting the mortises and tenons into a single operation, but be aware – if unprepared in its use, you can make mistakes and potentially end up with more wood in the scrap pile. Avoid these errors and get more out of the tool by following the suggestions in this article.

Room for error

To use a Domino joiner, you first install the correct mortising bit and then make sure you get three other settings right: the fence height, the mortise width and the mortise depth. With so many variables involved, it is no wonder that many users make cutting mistakes with the tool, especially when more than one type of joint is cut in the same project.

The chance of human errors also increases when pieces of different thicknesses and varying depths of cuts are involved. For example, if you forget to change the depth of cuts after mortising a drawer's sides, you may run the risk of cutting through the front piece if it is a thinner material. Or, if you forget to change the cutter from a previous session, you might cut an oversize mortise, which is sometimes a fatal blunder. To prevent such blunders, you need a strategy that addresses them before they happen. And here is how I do it – learning from my early mistakes, mistakes that you can avoid with the tips in this article.

Proper marking eliminates errors

Most woodworkers have learned to mark the waste to avoid cutting on the wrong side of the line. In the same spirit, the first of my two-part strategy is to locate and mark out every mortise to be cut on the actual pieces. This prevents you from cutting the mortises on the wrong side or end, for example. The visual guide eliminates all reference mistakes.



Use your own marking system to organise your workpieces

Group the workpieces

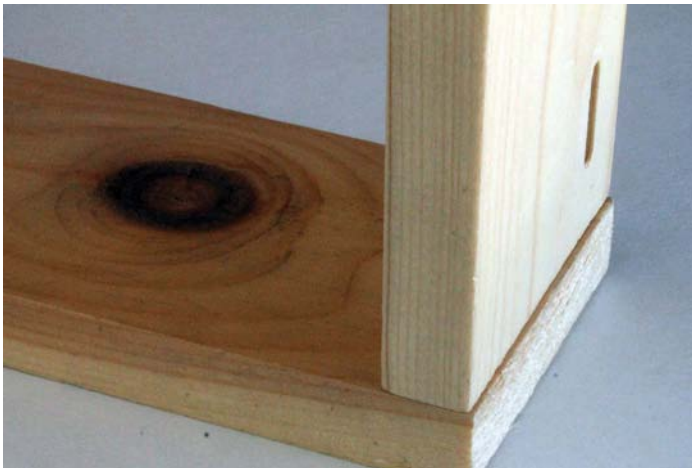
Unless you work with just a few pieces, the second part of my strategy is to group the workpieces according to the settings required. Finish all the mortises with the same settings before changing the settings for the next cuts. Until you are familiar with the process, you may also want to make a test cut on a scrap piece of wood after changing the settings just to verify them. Finally, if you start the group that is to be mortised with a shallower depth setting or smaller bit, you can still reset and recut the mortises deeper to correct the mistakes, if any are found during the dry-fitting process.

Smart settings minimise mistakes

Most users set the fence height with the height gauge or thickness gauge to give a mortise height that is centred in the workpiece. Sometimes, if the stock is thick enough, I prefer to slightly offset the slots from the centre. The offset allows me to detect an assembly error easier if I, for example, fit a piece with the wrong face or side up. Many owners also use a standard mortise width to cut the first mortise slot and then reset it to the oversize width to cut the rest of the mortise slots. They will then repeat the same procedure on the mating workpiece, requiring the resetting of the mortise widths several times.

Here is a better approach: start with the standard – smallest – mortise width and cut all the slots on the first workpiece as well as the first slot on the mating piece to register the two pieces. Then, reset it to the wider setting and cut the remaining slots of the mating piece. Here, you only need to change the width setting once.

Does it matter if you use the standard width setting on the long grain versus the end grain? Yes, it does. The mortises can sometimes be too tight when they are cut in the standard width setting on the face or long grain. Try using the standard width setting on end grain only.



When the slots are cut offcentre, the assembly blunder reveals itself during the dry run



Slots or holes cut in the end grain are slightly larger as the fibres compress on the walls

Making butt joints

For tenoned butt joints, I have tried three different ways of cutting the mortises and you can choose the one that best suits the particular project.

Cutting slots using the same fence height

The standard technique as given in the user's manual is to cut mortises with one workpiece held vertically and the mating piece horizontally, using the same fence height setting. Always keep the joiner perpendicular to the face when cutting the vertical piece.

Supplier details

Contact: *Festool*
Web: *www.festool.co.uk*



The base support bracket adds registration surface as the fence rests on the edge



Make sure the baseplate is not in contact with the bench top. You could use some scrap to raise the stock

Cutting slots using the baseplate as the reference face

I came up with a 'L'-shaped jig so that I can use the joiner in a biscuit joiner's fashion, resting the joiner flat on the workbench. The first step is to clamp the vertical piece to the tall fence and, after aligning for the tenon position, cut the mortise with the joiner placed on the bench top. To cut the mortises on the mating workpiece, simply clamp the board horizontally on the workbench and plunge the joiner into its edge.

Using this method, the height fence is not used and the setup is solid and stable. The downside, however, is that it is not suitable for thin boards, which does make it slightly limiting.



With the workpiece held vertically and the baseplate resting on the bench top, plunge the joiner into the face grain

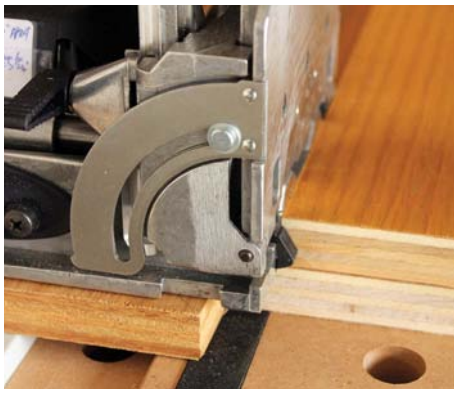
Cutting slots using a spacer guide for positioning

Cutting mortises on long vertical boards using the standard technique with the height fence can be cumbersome. A better option I came across is to cut mortises with all pieces laid horizontally on the bench top.

First, place one board on the workbench and position the mating board on top with a set-back from the edge of the bottom piece equal to the mating board's thickness. You can measure the set-back, or for repetitive jobs, make a spacer guide for the positioning. Support the joiner with a scrap and cut the mortises on the edge of the top piece. Stand the joiner upright and cut the mortises on the bottom piece.



Use the spacer guide to position the top piece on the bottom panel



Place a scrap of equal thickness underneath the baseplate for support



Stand the joiner upright with its baseplate against the edge of the top piece. Note: pencil lines are made on the top piece only

Getting more out of the Domino joiner

Operation

- The top flat corners on the front of the baseplate align precisely with the centre of the bit. Using these corners and the centreline scribed on the baseplate to position the joiner, you can cut a mortise based on any two intersecting perpendicular lines
- Grasp the joiner by the narrower handle near its end instead of the main body for better control and leverage when plunging the joiner
- Plunge the joiner slowly into the workpiece, minimising the shifting of the joiner and retract the motor housing fully before withdrawing the joiner to minimise the risk of breaking the smallest bit

Assembly & Glue-up

- Size down some Dominoes of each size and put them aside for use in dry fitting. If the regular Dominoes have swollen, microwave them for 5-15 seconds before use. Caution: wear a pair of utility gloves to handle the hot tenons
- Glue the Dominoes into the end grain slots first – i.e. slots cut in the smallest width, ensuring the Dominoes are mounted straight up in the slots F&C



Align the top edge with the horizontal pencil line and the scribed centreline with the vertical pencil line



The slot can be cut precisely at any location or in any orientation, as guided by the intersecting lines

References

Christopherson, Rick. Tenon Joiner Supplemental User's Manual. *(n.d.). Retrieved from www.festoolcanada.com/media/pdf/domino_df_500.pdf*











SAVE UP TO 30% WHEN YOU SUBSCRIBE

FREE EARLY DELIVERY +

projects techniques design inspiration profile workshop 20mins handtools furniture events news workshop F&CUK

+ **DIRECT TO YOUR DOOR**

You pay less than £3 an issue!
by Direct Debit

3 EASY WAYS TO SUBSCRIBE

Please quote order code A4668

☎ +44 (0) 1273 488005

www.thegmcgroup.com

FREEPOST RTHA -TGLU -CTSK, GMC Publications Ltd, 166 High Street, Lewes, BN7 1XU (please affix a stamp if posting from overseas)

YES! I would like to subscribe to Furniture & Cabinetmaking

Subscriber details

Title | Initial | Surname

Address

Postcode | Country

Telephone | Email

Subscription options (please tick the appropriate price)

Pay by cheque/card	12 issues **SAVE 10%**	24 issues **SAVE 20%**
UK	£45.90	£81.60
Europe	£57.38	£102.00
Rest of World	£64.26	£114.24
Pay by Direct Debit (UK only) **SAVE 30%**		
UK only	£17.85 every 6 issues	£35.70 every 12 issues

The Direct Debit Guarantee: This guarantee is offered by all Banks and Building Societies that take part in the Direct Debit Scheme. The efficiency and security of the Scheme is monitored and protected by your own Bank or Building Society. Please see your receipt for details. Guild of Master Craftsman Publications will ensure that you are kept up to date on other products which will be of interest to you. If you would prefer to not be informed of future offers, please tick this box ☐
Offer expires 31/10/2015 Plus free gift with some issues; sorry not available overseas

Payment methods (please tick and fill in chosen option)

☐ I enclose a cheque made payable to GMC Publications Ltd, or ☐ Please debit my credit/debit card

Card No.

Start date | Expires | Security code

Signature | Date

☐ Direct Debit

Instructions to your Banks or Building Society

Name of account holder

Bank or Building Society account no.

Bank or Building Society sort code

Name and full postal address of your Bank or Building Society

Name

Address

Postcode

Originator's identification number 6 5 9 9 5 7

Reference number (office use only)

Instruction to your Bank or Building Society:
Please pay GMC Publications Ltd Direct Debits from the account detailed in this instruction subject to the safeguards assured by the Direct Debit guarantee. I understand that this Instruction may remain with GMC Publications Ltd and, if so, details will be passed electronically to my Bank/Building Society.

Banks and building societies may not accept direct debits for some types of accounts.

Signature | Date

A4668

The 'world's best' finger joint jig

Derrick Wilkinson shows us how to make this handy jig, which is an excellent solution if you need to cut a lot of finger joints

PHOTOGRAPHS BY DERRICK WILKINSON

We recently discussed an ingenious jig for making finger joints on a router table. If you need to cut a lot of finger joints that are all the same size, it's an excellent solution. It may be, however, that you want to enhance the decorative aspects of finger joints by varying their size. Or it may be that you don't have a table for your router. If so, what I think of as the 'world's best' finger joint jig gives you that extra flexibility. This jig may take a little longer to make than the other jig, but I think you'll find its extra flexibility is worth the extra time and effort.

To demonstrate this jig, I'll joint two well-dimensioned boards that are each 90mm wide × 10mm thick. As with most jigs, the quality of the results will depend on the care and precision with which the jig is built.

Making the parts for the jig

We can start by making the handle. For this, I use MDF, but good quality plywood could also be used. The handle is composed of two equal sized pieces of MDF sandwiching a third piece that is the same width but rather taller. In the example opposite, the outer boards are 12mm MDF that is 225mm wide and 150mm tall, while the middle board is 25mm MDF that is 225mm wide but 250mm tall. These boards are simply glued together. You then need a small board to act as a reference board on the jig, which will be attached to one edge of this handle. This reference board needs to be the thickness of the handle plus about four times the thickness of the stock you propose jointing. In this case, the stock is 10mm thick, so the reference board needs to be about 100mm wide.



Making the handle for the jig with two equal sized pieces of MDF sandwiching a third taller piece

The jig fingers

We now need to turn our attention to the fingers. This is an important step in the making of this jig, as the fingers that you make for this jig will determine the quality of the final finger joint.

With the 90mm boards we have lots of options. We could, for example, choose to have nine fingers that are each 10mm, we could have five fingers that are each 18mm, or we could have fingers of varying sizes. The important thing to remember is that the total adds up to the width of the board – 90mm in this case. I think the joints look better if there is an odd number of them, but there is no hard and fast rule about this – as far as I know. In this case, we will divide the 90mm into seven fingers that are the following sizes: 10, 15, 10, 20, 10, 15, 10, as shown in the photo. If we were making a finger joint with all fingers of the same size – say nine 10mm fingers – then we could simply dimension one long finger and then cut it into the required lengths to provide the jig fingers needed. That way we would ensure that every finger was exactly the same size.

So we need four jig fingers that are each 10mm wide, two that are each 15mm wide, and one that is 20mm wide. As to length, I find that fingers that are around 80mm long work well, as they make for a slightly wider and more stable base for the jig. The thickness of the fingers, however, requires a bit more thought.



Dividing the total length of the board – 90mm – into seven fingers

Affixing the jig fingers

The jig fingers provide a template of the desired finger joint, against which you can run a template cutter. That cutter needs to be thinner than the thinnest finger to be cut and long enough so that it can reach the shoulder line of the finger joint while keeping the bearing securely on the template. For this joint, the cutter I will use is 9.5mm wide × 20mm long. With 10mm boards, the shoulder line will be 10mm above the top of the jig finger, so the bearing will be some 10mm below. The bearings themselves are about 7mm wide, so I will want jig fingers that are about 18-20mm thick.

Once the jig fingers have been accurately cut, drill and countersink a pilot hole about 15mm from the end of each of them. These will be used to screw the jig fingers to the base of the jig handle.

Assembling the jig

Clamp the jig handle upside down in a bench vice – as shown in the photo. The reference board is centred on one end of the jig and sits proud of the base by something less than the thickness of the jig fingers. To attach it, I simply stick it on the jig with a bit of doubled-sided tape and then add a couple of screws. In this case, with 19mm jig fingers, it sits about 15mm above the jig base; this allows you to use the same reference board for attaching the jig fingers that will be used for the boards that will be finger jointed.

Begin by gluing the first jig finger on to the base, flush against the reference board and covering about two thirds of the width of the base. Using a square to ensure all the fingers are nice and square on the jig and they are snugly next to each other, attach the rest of the jig fingers, in the desired order, alternating them, as shown in the photo. Leave this now for a few hours to let the glue harden before carefully putting in the screws.

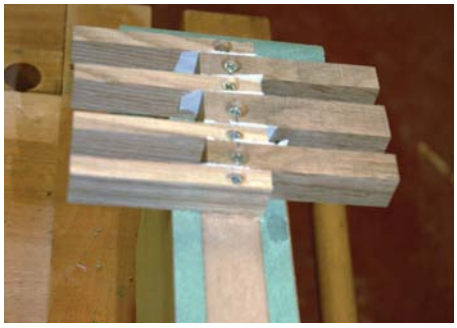
Because the same jig fingers provide the template for both the finger and the space into which the finger will go, if you simply attached all the jig fingers snugly next to each other, the resulting joint would be too tight; it would be very difficult, if not impossible, to get together. The answer is to relieve the spaces very slightly by inserting shims that are about a couple hundredths of a millimetre between each of the jig fingers. To do this, I find cigarette papers work well, with each being about 1/100mm thick. The jig is now ready to use.



Clamp the jig handle upside down in a bench vice



Attach the rest of the jig fingers, in the desired order, alternating them as shown here



Insert shims that are about a couple hundredths of a millimetre between each of the jig fingers

Using the jig

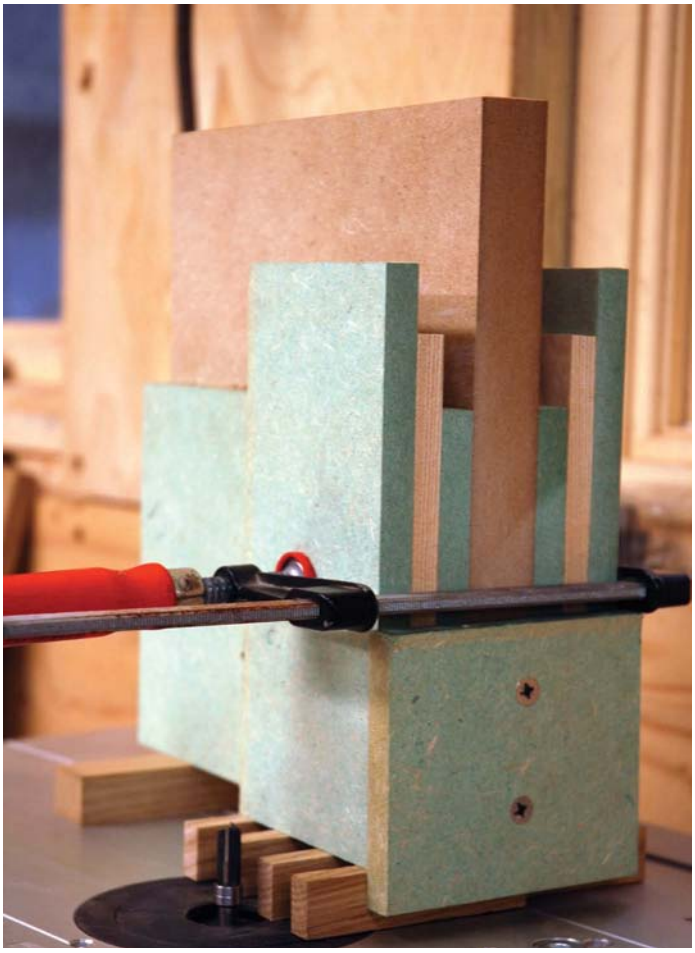
First, stand the jig on the jig fingers with the handle pointing upward. Place the two boards to be finger jointed snugly up against the reference board, one on each side of the handle, then cover each of the boards with pieces of MDF that are roughly the same width as the boards and clamp everything together, being careful to ensure that the clamp is well away from the cutting area. These sacrifical boards, along with the base of the jig, help to ensure the cleanness of the cut, and they can be reused.

Set and lock the cutter so that it reaches the desired shoulder line. If you prefer the fingers of the joint to be slightly proud so that you can plane them flush, you would set the cutter just above the shoulder line accordingly.

It is best if you use a table, but if you don't have one, simply turn the jig upside down and clamp it in a vice. The jig can now be used with a hand-held router. Now rout between the jig fingers on both sides of the jig and job done!

If you were jointing narrow sections, say for a small box, you'd find that the jig would not be very stable – and safe to use – if it was built specifically for a narrow section. The answer to this problem is simply to make the jig handle nice and wide and add an outrigger finger at the opposite end of the jig to the reference plate; this will ensure the jig stays flat and stable, even though it's being used for only narrow sections of wood.

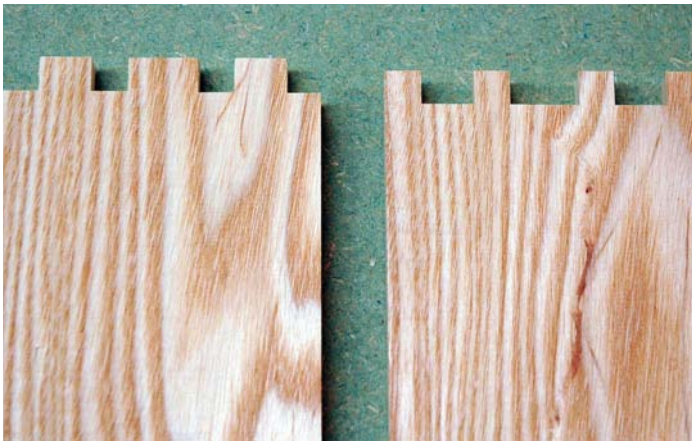
A word of advice: if you find that you don't need a particular jig any longer, you can unscrew and break off the jig fingers, remove the reference board and then cut off a small strip of the base of the handle with the bench saw. Reinstall the reference board and it's ready to receive your next set of jig fingers.



Place the two boards to be finger jointed snugly up against the reference board, one on each side of the handle



The jig can also be used with a hand-held router



Different sized finger joints made using the jig



If all goes to plan, the finger joints should fit together perfectly

Angled finger joint jig

This finger joint jig has been shown to have several advantages: it is very accurate, you can get a wide variety of finger sizes from a single router cutter and it can be used on either a router table or not. That allows for quite a bit more flexibility for exploring the design possibilities of the finger joint. But this jig has another trick up its sleeve.

Most finger jointing applications involve jointing boards at a 90° angle to each other. But what if you want some other angle, as I did when constructing the trapezoidal case for a clock – in this case a frustum. This jig also gives you the option of finger jointing at a range of angles. You'll need to brush up on your geometry and mark the boards carefully, but the jig can be easily adapted to cut finger joints at an angle. Let's say you want to joint two boards at an angle of 30° from perpendicular. Simply cut the base of the jig handle on the tablesaw with the blade set to 30°. When you stand the jig up, this will leave you with the jig handle standing on the fingers at a slope of 30° to the perpendicular on one side and 150° on the other – the sum of the angles on the two sides of the jig will always equal 180°. This allows you to cut finger joints at the chosen angles. If you wish, you could cut the ends of the boards to the final angles before routing, but I find it quickest just to rout the finger joints and then to plane the ends after final fitting.

Two things that are important to keep in mind when cutting angled finger joints:

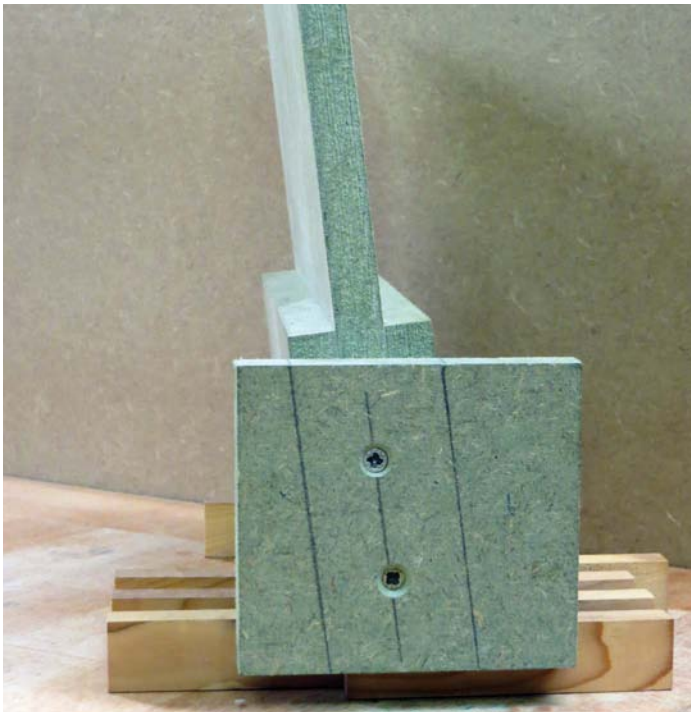
1. Clearly mark in pencil the edge of your boards with the required shoulder line so you can ensure that the shoulder line you will cut is parallel to the fingers. It is very easy to clamp your boards on the jig in the wrong direction, and to get shoulders sloping in the wrong direction.

2. You also need to ensure that your arrangement of fingers is symmetrical across the width of the board, because you will need to 'flip' the boards when cutting complementary angles.

Once you've grasped the principles behind this jig and you've tried it a few times, I'm sure you will appreciate the wide scope and flexibility it provides for reliably and accurately cutting almost any sort of finger joint you may want, and that it may well be 'the world's greatest' finger joint jig. F&C



Always mark all the required shoulder lines on your boards to ensure the cuts are parallel to the jig fingers!



An example of an angled finger joint jig. This one was built by simply capturing the required angle from a drawing using a sliding bevel



By carefully marking the boards and flipping them as required, this single jig was used to produce all four angled joints



The case for a mantle clock, built recently using the jig shown above

Woodworking at Heart
since 1955



AD/1503

trend®
routing technology

To find your nearest stockist visit
www.trend-uk.com
or call 01923 249911

THE NSS TRADE SHOW

Since 1960

JOIN US FOR TWO DAYS OF IN-STORE DEMO'S WITH 5 OF THE UK'S LEADING POWERTOOL BRANDS

FRI 3RD JULY 9AM-5PM & SAT 4TH JULY 9AM - 1PM



NORFOLK SAW SERVICES, DOG LANE, HORSFORD, NORWICH, NR10 3DH

TEL: 01603 898695 EMAIL: sales@norfolksawservices.co.uk

WoodRat®

THE ORIGINAL



and still the best way to joint wood

Uncluttered yet accurate, quick to set and simple to use.

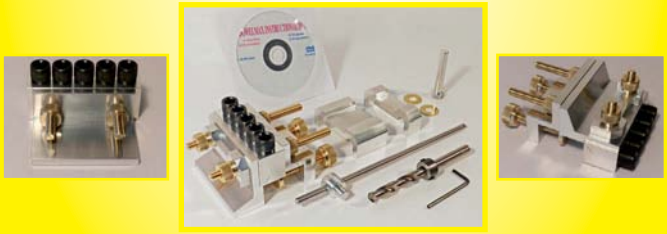
see it in action... woodrat.com

DOWELMAX

Tables, chairs, stools, kitchens, bedrooms, desks, bookcases, sideboards, beds, benches, doors, windows, steps, cabinets,
make them all and more with Dowelmax doweling jig

No need for biscuit jointers, tenoners, morticers, screws, loose tenons etc,
make joints faster, more accurately and stronger with Dowelmax

The ultimate doweling jig for woodworkers



See us on YouTube and visit
www.dowelmax.co.uk
for more info, video and ordering.

TOOLTEC

ENDURING QUALITY®

READY2LIFT

- Easy to use
- Precision movement
- Repeatability
- Instant joinery
- Expandable
- Built to last







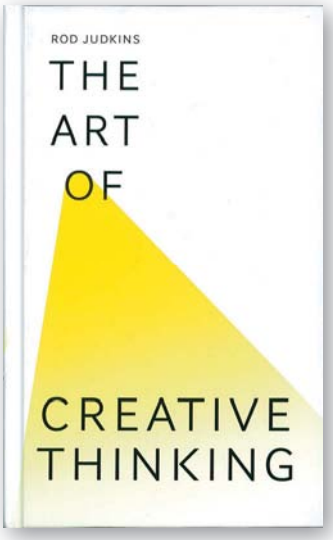
READY2ROUT

Call 01494 523991 sales@tooltec.co.uk
Fax 01494 524293 www.tooltec.co.uk

Workshop library

Derek Jones reviews *The Art of Creative Thinking* by Rod Judkins and a book on Wharton Esherick. Website of the month is the Drunken Woodworker

BOOKS



The Art of Creative Thinking

by Rod Judkins

Understandably perhaps, the bulk of my reading material is related to the various aspects of woodworking and furniture design but every so often I manage to squeeze something in that's a little off topic. I bought this version of *The Art of Creative Thinking* – there is a larger one I'm told – for a train journey. As well as a successful artist in his own right, Rod Judkins is a lecturer and academic on the arts from Central Saint Martins, making the title of this book about as much as you need to know to go out and buy it. Sure, there are a lot of references to the art world but plenty of wisdom from other quarters that point to a common thread between creative thinkers from all walks of life. Judkins' analysis of the links between entrepreneurial business people and those operating in the arts is in the style of a good after dinner speaker: lighthearted, insightful and entertaining. This was written for the couch in your living room, not the one down at the surgery.

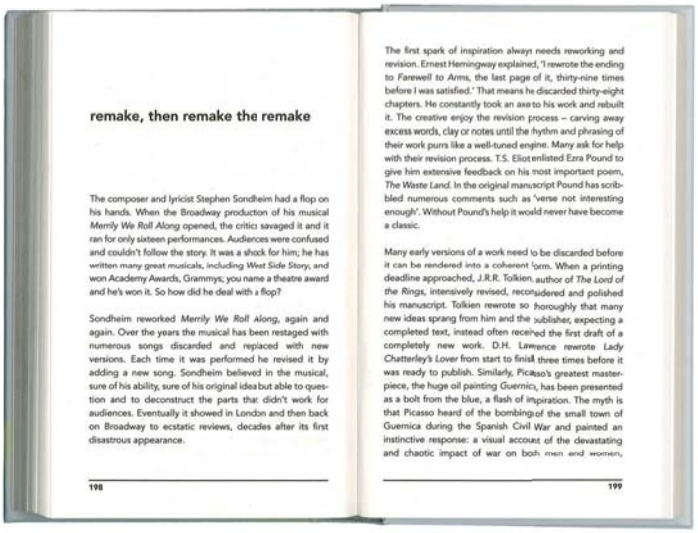
> *"If you're interested in 'balancing' work and pleasure, stop trying to balance them. Instead make your work more pleasurable"* Donald Trump

Now you wouldn't expect a book with this title to amble along, page after page in succession. In fact, you'll find it almost impossible to read end to end in the conventional way. The author has placed triggers that send you back and forth through the 281 pages, depending on your emotional response to the last lesson/story told. Short of marking each page as it's read, I'm still not sure if I've read them all and it's been on several outings.

If you're a bit nerdy about quotes, and let's face it who isn't, *The Art of Creative Thinking* is full of quality soundbites from the likes of Steve Jobs to Marilyn Monroe, Donald Trump to Edgar Degas and Tennessee Williams to Galileo. The line-up is eclectic but all inclusive. The message is clear: the art of creative thinking is about as close to solving the meaning of life as you'll ever get and a lot less complicated.

The author's advice, and I urge you to take it, is to dip in and out when you find yourself in need of inspiration. Rather than offer any specific remedies, it should jolt you into a place where your imagination can let rip.

Published by Sceptre
ISBN: 978144479448-9
281 pages £9.99


remake, then remake the remake

The composer and lyricist Stephen Sondheim had a flop on his hands. When the Broadway production of his musical *Merrily We Roll Along* opened, the critics savaged it and it ran for only sixteen performances. Audiences were confused and couldn't follow the story. It was a shock for him; he has written many great musicals, including *West Side Story*, and won Academy Awards, Grammys; you name a theatre award and he's won it. So how did he deal with a flop?

Sondheim reworked *Merrily We Roll Along*, again and again. Over the years the musical has been restaged with numerous songs discarded and replaced with new versions. Each time it was performed he revised it by adding a new song. Sondheim believed in the musical, sure of his ability, sure of his original idea but able to question and to deconstruct the parts that didn't work for audiences. Eventually it showed in London and then back on Broadway to ecstatic reviews, decades after its first disastrous appearance.

198

The first spark of inspiration always needs reworking and revision. Ernest Hemingway explained, 'I rewrote the ending to *Farewell to Arms*, the last page of it, thirty-nine times before I was satisfied.' That means he discarded thirty-eight chapters. He constantly took an axe to his work and rebuilt it. The creative enjoy the revision process – carving away excess words, clay or notes until the rhythm and phrasing of their work purrs like a well-tuned engine. Many ask for help with their revision process. T.S. Eliot enlisted Ezra Pound to give him extensive feedback on his most important poem, *The Waste Land*. In the original manuscript Pound has scribbled numerous comments such as 'verse not interesting enough'. Without Pound's help it would never have become a classic.

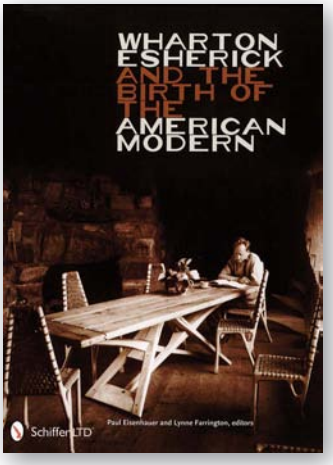
Many early versions of a work need to be discarded before it can be rendered into a coherent form. When a printing deadline approached, J.R.R. Tolkien, author of *The Lord of the Rings*, intensively revised, reconsidered and polished his manuscript. Tolkien rewrote so thoroughly that many new ideas sprang from him and the publisher, expecting a completed text, instead often received the first draft of a completely new work. D.H. Lawrence rewrote *Lady Chatterley's Lover* from start to finish three times before it was ready to publish. Similarly, Picasso's greatest masterpiece, the huge oil painting *Guernica*, has been presented as a bolt from the blue, a flash of inspiration. The myth is that Picasso heard of the bombing of the small town of Guernica during the Spanish Civil War and painted an instinctive response: a visual account of the devastating and chaotic impact of war on both men and women,

199

The book looks at the importance of rebuilding until you're happy with the end result

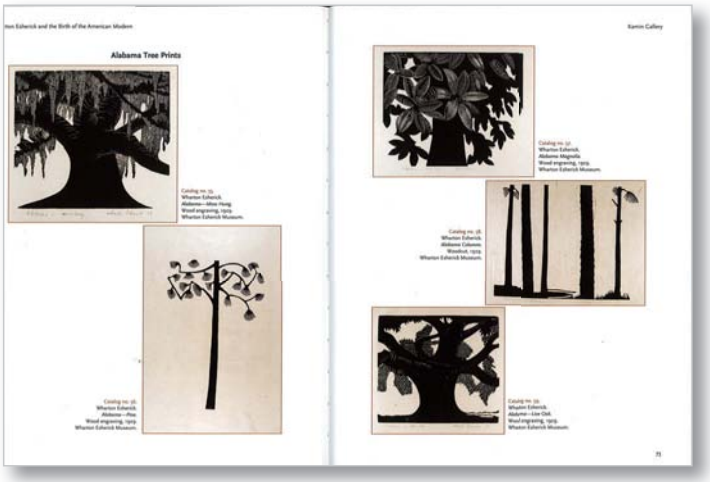
Wharton Esherick and the Birth of the American Modern

by Paul Eisenhauer and Lynne Farrington



I've a confession to make: this wasn't the book I thought it was going to be. As a life long student of furniture design and making, I was surprised to learn that there was yet another huge gap in my education. Wharton Esherick, at least to me, is a maker that I most readily identify with the artist furniture genre. Let's call it studio furniture as that's where it generally gets foisted on the public. You can probably tell I'm not a huge fan of that genre. I am, however, or at least I thought I was, a huge fan of Esherick's work. As woodworkers, we can easily identify with the complex struggle of form and function in his more expressive pieces of furniture. As designers, we can appreciate his fascination for simplicity of line but, as artists, I think we forgive him for his slightly left of centre outlook. They say you should never meet your heroes, but in this instance, I'm glad I did. OK, hero might be a bit of an exaggeration, but Esherick was an influence on my work at one time. More through a greatest hits compilation I suspect than a forensic study such as this.

Wharton Esherick and the Birth of the American Modern is not just about the man himself: it references his early work and the trials and tribulations that artists go through before they either get a proper job or thrive. In many ways, this account is more about what made Esherick the creative force and B list icon he is. There's nothing wrong with a B listing by the way. In my neck of the woods, East Sussex, we have the leftovers of what are known as the Bloomsbury Set. Charleston, the country home of the group, is decorated with paintings and other memorabilia and is something of a pilgrimage for arty types with a penchant for love triangles, suicide and communism. It has all the ingredients for a great story



A selection of Wharton Esherick's wonderful wood cuts and engravings

but not necessarily great art. Esherick, it seems, got away by the skin of his teeth from becoming a narcissistic, self-indulgent fop.

Just so you know, there's not a lot of furniture in this book and even less about how it was made. What there is plenty of though is sufficient background information to suggest that Wharton Esherick was probably just a regular guy. His 'Hammer Handle Chair' – 1938 – is surely testament to that.

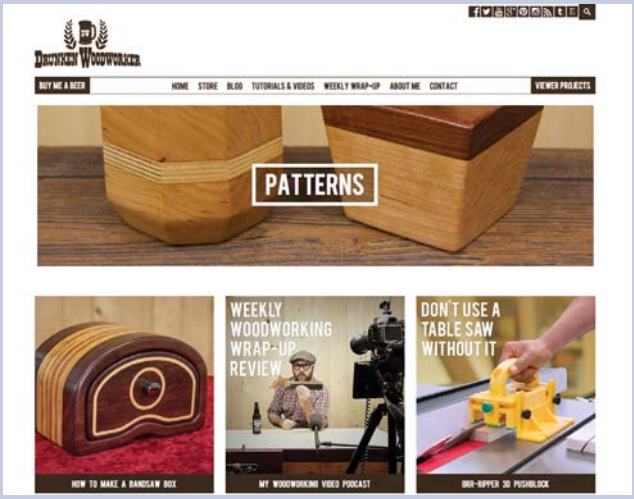
Published by Schiffer Publishing
ISBN: 9780764337888
160 pages £19.76



Esherick's 'Hammer Handle Chair' was made using approximately 12 hammer handles with industrial belting for the seats

Website of the month

Drunken Woodworker



This website from David Picciuto gives you a fun, educational and exciting look at woodworking. Just from the homepage his enthusiasm for sharing his knowledge, tips and advice to his visitors is clear. The homepage uses a slideshow, menu bar and a couple of quick links to articles at the top, whereas the bottom half of the page allows users to scan through the latest and most popular articles, six links at a time.

Regular uploads

David's regular article uploads cover a whole range of subjects, including: weekly wrap-up reviews, projects, upcycling, a video blog and more. The projects posted cover a great range of ideas, with the pages laid out clearly alongside an accompanying 'overview' video of the making of the project. An excellent quirk of David's website is the 'here's what you'll need' list. Although this list is a 'must have' element in a project, David links each listed item to a website you can buy the item from. From there, the projects carry on step-by-step with photos to illustrate.

Viewer projects

Drunken Woodworker also features a store, blog, tutorials and videos and a 'viewer projects' page. David publishes viewer projects – dependent on picture and text quality – creating a great way of getting his readers involved. This is a great website full of facts, tips, projects and techniques.



Details

Web: drunkenwoodworker.com

SUBSCRIBE TODAY SAVE UP TO 30%!

SAVE 10% ON ANY OF THESE MAGAZINES – OR 30% IF YOU PAY BY DIRECT DEBIT



Traditional woodworking with the latest tools & techniques

Woodworking Crafts covers a broad range of content, including upcycling, DIY, restoration, and 'green' woodworking, step-by-step guides, community features and a broader range of skill levels.



The best-loved woodturning magazine

Woodturning is the world's best-selling magazine for woodturners. Every issue is packed with projects, essential advice for both the hobby woodturner and professional, and features on turners around the world.



Guidance and inspiration for ambitious carvers

Through fantastic projects and instructional techniques from top professional and talented amateur carvers, *Woodcarving* offers something for everyone. Project include wildlife, chip carving, relief, and stylized carving.



For those who love to make furniture

Furniture & Cabinetmaking is an essential read for the furniture maker. Topical features, industry news and reliable reviews complete the mix of content.

3 EASY WAYS TO SUBSCRIBE

1 CALL
01273 488005

2 VISIT
www.thegmcgroup.com

3 POST
GMC Publications Ltd, FREEPOST BR2265, Lewes, East Sussex BN7 1BR

Please quote order code A4808

Subscriber details

Title | Initial | Surname

Address

Postcode | Country

Telephone | Email

Subscription options (please tick the appropriate magazine and price)

	Pay by cheque/card SAVE 10%	Pay by Direct Debit SAVE 30%
Furniture & Cabinetmaking (12 issues)	£45.90 (UK), £57.83 (Europe), £64.26 (Overseas)	£35.70 (UK only)
Woodworking Crafts (12 issues)	£45.90 (UK), £57.83 (Europe), £64.26 (Overseas)	£35.70 (UK only)
Woodturning (12 issues)	£42.66 (UK), £53.33 (Europe), £59.72 (Overseas)	£33.18 (UK only)
Woodcarving (6 issues)	£21.33 (UK), £26.66 (Europe), £29.86 (Overseas)	£16.59 (UK only)

The Direct Debit Guarantee: This guarantee is offered by all Banks and Building Societies that take part in the Direct Debit Scheme. The efficiency and security of the Scheme is monitored and protected by your own Bank or Building Society. Please see your receipt for details. Guild of Master Craftsman Publications will ensure that you are kept up to date on other products which will be of interest to you. If you would prefer not to be informed of future offers, please tick this box ☐
Offer expires 31/10/2015 Plus free gift with some issues; sorry not available overseas

Payment methods (please tick and fill in chosen option)

☐ I enclose a cheque made payable to GMC Publications Ltd, or ☐ Please debit my credit/debit card

Card No.

Start date | Expires | Security code

Signature | Date

☐ Direct Debit

Instructions to your Banks or Building Society

Name of account holder

Bank or Building Society account no.

Bank or Building Society sort code

Name and full postal address of your Bank or Building Society

Name

Address

Postcode

Originator's identification number 6 5 9 9 5 7

Reference number (office use only)

Instruction to your Bank or Building Society:
Please pay GMC Publications Ltd Direct Debits from the account detailed in this instruction subject to the safeguards assured by the Direct Debit guarantee. I understand that this Instruction may remain with GMC Publications Ltd and, if so, details will be passed electronically to my Bank/Building Society.

Banks and building societies may not accept direct debits for some types of accounts.

Signature | Date

A4808

EUROPEAN WOODWORKING SHOW

6th YEAR

Woodworking in Action

Cressing Temple Barns, Near Braintree, Essex

Saturday and Sunday 12th and 13th September 2015

TICKETS NOW AVAILABLE

Call 01473 785 946

or visit

www.ews2015.com

GENERAL FINISHES

The leaders in water based finish technology

The best milk paints for upcycling



- For interior & exterior use
- Apply over most existing finishes
- Typically covers in 2 coats
- Highly durable
- Glazing & top coating optional
- Our 'Lamp Black' is black!

Thanks to Shabby Pickins



VOC 2010 COMPLIANT

Tel: +44 131 661 5553 info@generalfinishes.co.uk

Unit 13, Peffermill Parc, 25 King's Haugh, Edinburgh, EH16 5UY.

www.generalfinishes.co.uk

STRONG STAINABLE HEAT-RESISTANT WATERPROOF

Wood Glue MAX from Elmer's

Contains real wood fibres for superior Staining, Painting and Sanding



Find your nearest stockist

elmersglue.eu

Available on the App Store



DOWNLOAD
FURNITURE & CABINETMAKING
TODAY

FOR JUST £1.99
AND GET 1 FREE ISSUE

Subscribe and get individual issues wherever you are

+ save money!

6 Month subscription £14.99
12 month subscription £27.99
Single issues £2.99

pocketmags.com

















THE
CHIPPENDALE
INTERNATIONAL
SCHOOL
OF
FURNITURE

www.chippendaleschool.com

David Charlesworth
Tool tuning & fine furniture making courses



Revolutionise your hand tool skills with David's five day Tool Tuning course; ultimate plane tuning, chisel preparation and planing skills. Subsequent courses cover Dovetailing and Drawer Making/Fitting.
Five day courses run from April to August.

12 Week course starts September 2015.

David is a legend of the UK woodworking scene and has a wonderful teaching workshop in an idyllic location in Hartland, North Devon.

David's new DVD has arrived.
Please see website for details.

Contact David on 01237 441288 or email davidcharl@aol.com
www.davidcharlesworth.co.uk



JOHN LLOYD

LEARN A NEW SKILL OR PLANNING A NEW CAREER. INTENSIVE COURSES IN:



FINE FURNITURE MAKING
ANTIQUE FURNITURE RESTORATION
VENEERING & LAMINATING
TRADITIONAL HAND FINISHING

www.johnlloydfinefurniture.co.uk
01444 480388 | Sussex

JOHN LLOYD FINE FURNITURE
NEW FOR 2015
A SERIES OF SUMMMER MASTERCLASSES

1, 2 and 3 day practical classes covering a range of furniture making and antique restoration skills

Suitable for all abilities



www.johnlloydfinefurniture.co.uk/courses
01444 480388 | Sussex

TO ADVERTISE PLEASE CALL RUSSELL: 01273 402841

SURREY TIMBERS Ltd

Your One-Stop Wood Shop

Hardwood Timber Merchant stocking local & Imported Timber



Please come & select from our range:

OAK, YEW, WALNUT, SAPELE, APPLE, MAPLE SYCAMORE & More!

All welcome
• Woodturners • Joiners
• Cabinetmakers

Call in and see
our huge range at
Loseley Park, Guildford, Surrey

01483 457826 or **07795 663792**

www.surreytimbers.co.uk

WATERS & ACLAND The Furniture School

Perfection in the making

In the Lake District

master the art of designing and making fine furniture

located in our Guild Mark winning commercial workshops

tutored full time by our master cabinet makers and award winning designer



tel 01539822852
www.watersandacland.co.uk

The Old Tool Store

Suppliers of fine, old woodworking tools.

We now stock new tools by selected quality manufacturers including ***Ray Iles***, ***Ashley Iles***, ***Kunz***, ***Clifton*** and ***Gransfors Bruks***.

Please contact us for details of:
•Ray Iles range of D2 thicker irons for Bailey pattern planes
•Standard replacement irons for most obsolete planes
•Reground planes by Record and Stanley
•Plane sole regrinding service.

We also buy quality old woodworking tools, from single items to complete collections. Good prices paid.

Whitehaven Farm, Boston Road, Horncastle, Lincolnshire, LN9 6HU.
Tel: 01507 525697 Fax: 01507 523814
E-mail: ray@oldtools.idps.co.uk

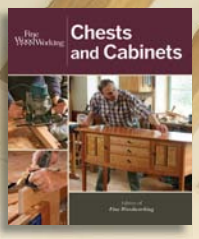
For sale

Wadkin Bursgreen Sander
offers around £500

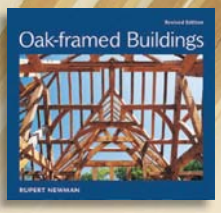
Large pile of walnut veneer
offers around £300

Buyer collect Stone Staffordshire
01785 602104

NEW WOODWORKING BOOKS



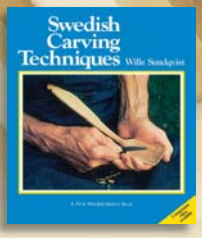
Quick Find Code: 24243
Chests and Cabinets
£14.99



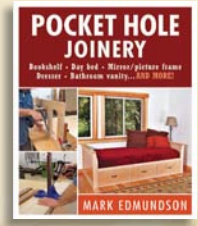
Quick Find Code: 23865
Oak-Framed Buildings
£24.99



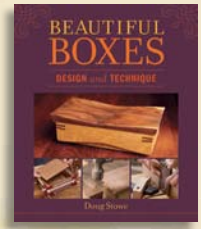
Quick Find Code: 22214
Weekend Woodturning Projects
£16.99



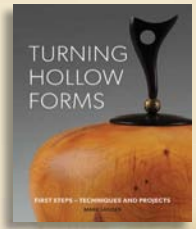
Quick Find Code: 23586
Swedish Carving Techniques
£16.99



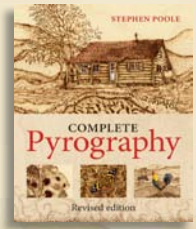
Quick Find Code: 24246
Pocket Hole Joinery
£16.99



Quick Find Code: 24404
Beautiful Boxes
£16.99



Quick Find Code: 19395
Turning Hollow Forms
£16.99



Quick Find Code: 23314
Complete Pyrography
£16.99

HUNDREDS OF INSPIRING WOODWORKING AND DIY BOOKS AVAILABLE
VISIT WWW.THEGMCGROUP.COM OR CALL 01273 488005

TO ADVERTISE PLEASE CALL RUSSELL: 01273 402841

www.slhardwoods.co.uk

Bespoke Services - About - Help - Price Guide - Contact Us

Solid Timber | Timber Products | Sheet Material | Edging | Polishing | Carving & Turning | Ironmongery | Tools & Accessories | Hot Deals

Product Search



Sheet Material Cut to Size & Edged - Cabinet Making - Quality Sheet Material

Call or email us for quote - info@slhardwoods.co.uk - 0203 051 4794

TIMBERLINE

Suppliers of fine and rare timbers
Veneers and inlays, tools and sundries
For the craftsman in wood

Unit 7, Munday Industrial Estate,
58-66 Morley Road, Tonbridge, Kent TN9 1RP
Tel: 01732 355626 Fax: 01732 358214
email exotic.hardwoods@virgin.net
www.exotichardwoods.co.uk

W.L.West & Sons Ltd
Selham, Petworth, GU28 0PJ
t: 01798 861611 f: 01798 861633

- Hardwoods
- Wood finishes
- Australian Burrs
- Exotic Timbers
- Woodturning Blanks
- Woodturning Courses (see website for dates)
- Woodworking Machinery
- Woodworking Tools
- Fencing, Gate & Decking Products
- Bespoke Garden Furniture

RECORD POWER SHEFFIELD - ENGLAND

Timber, Tools & Machinery
for D.I.Y • Carving
Woodturning • Furniture Projects
shop@wlwest.co.uk
Off A272 Midhurst to Petworth road opp The Halfway Bridge Inn

Open: Mon-Fri 8-5 & Sat 9.00-1.00pm
www.wlwest.co.uk

Wealden Tool Company
Router cutters
Spindle tooling
Bandsaw, jigsaw,
circular saw blades
www.wealdentool.com

MAIL ORDER
NARROW BANDSAW BLADES
MANUFACTURED TO *ANY* LENGTH
PHONE NOW FOR IMMEDIATE QUOTATION
OR WRITE TO US FOR A PRICE LIST
TRUCUT
Spurside Saw Works, The Downs, Ross-on-Wye,
Herefordshire HR9 7TJ
Tel: 01989 769371 Fax: 01989 567360
www.trucutbandsaws.co.uk

Large Supplier of Woodturning Tools and Woodwork Machinery All On Display

trend | RECORD POWER SHEFFIELD - ENGLAND

W.H. Raitt & Son Ltd
Main Street, Stranorlar
Co.Donegal, Ireland
(00353 749131028)
whraitt@eircom.net

charnwood | Robert Sorby

Advertising in the UK's only furniture making magazine can ensure your message reaches your specific target audience throughout the year.

Contact Russell on **01273 402841**
or email **russellh@thegmcgroup.com**

INTERESTING TIMBERS since 1986

EXTENSIVE RANGE OF ENGLISH GROWN HARDWOOD TIMBERS

Air or kiln dried.
Quarter Sawn Oak usually available.
Turning and carving blanks, full machining service.
Mail Order available - *No order too large or small.*
Contact us for details or come and see us (please ring first)
We'll ensure a helpful personal service.

DAVID and CATHERINE SIMMONDS,
Wells Road, Emborough, Near Bath BA3 4SP
Tel: 01761 241333 www.interestingtimbers.co.uk

TO ADVERTISE PLEASE CALL RUSSELL: 01273 402841

£6,250

UNDER THE HAMMER:

George III mahogany & painted hall bench

This month, we take a look at another prized lot from Bonhams' recent Fine English Furniture and Works of Art sale



PHOTOGRAPH COURTESY OF BONHAMS

A mahogany and painted pine hall bench from the time of George III, 440 × 1,830 × 430mm

This mahogany (*Khaya ivorensis*) and painted pine (*Pinus sylvestris*) hall bench is from the time of George III and its design is categorised into the neoclassical style. The bench's date of manufacture is noted as 1780 and its place of origin, England. Unfortunately, there is little to help trace the maker of the piece.

This 18th-century piece of furniture is a free-standing hall bench, which has a solid mahogany top with a moulded edge on a carved fluted frieze, holding a central swag decorated tablet. The legs of the free-standing bench are delicate, standing in square tapering, which are headed with roundels and stop fluted carving, finishing in ball feet. The reverse side of the bench is identically made, meaning the positioning of the bench within a hallway is open to showing the piece from all finely-finished sides.

Design inspiration

The tablet design used on the hall bench offered here relates to a pattern employed by Thomas Chippendale on a window stool, supplied circa 1771 to Harewood House, Yorkshire. Chippendale was a popular cabinetmaker and furniture designer, who worked in the mid-Georgian, English Rococo and neoclassical styles. Chippendale died in 1779, but his style, which reflected the current fashion of furniture at the time, was used by other cabinetmakers outside London. This bench could certainly be seen as a nod to Thomas Chippendale's designs.

The piece is still in good condition but, understandably, with wear consistent with age and use, which only adds character to the piece on auction. The bench stands at 440mm high, 1,830mm in width and 430mm in depth and sold for £6,250. For more information, see www.bonhams.com. F&C

MORE BITS MORE IMPACT



INSERT BITS



BIT HOLDERS



EXTENSIONS



POWER BITS



DOUBLE-ENDED POWER BITS



ANGLED DRILL DRIVE



MAGNETIC SCREW COLLAR

DOUBLE-ENDED BITS



DOUBLE-ENDED VERSATILITY



THE NEW IRWIN IMPACT PERFORMANCE SERIES™ BITS.
DO MORE WITH YOUR DRIVER THAN EVER BEFORE.

With single and double-ended bits, extension accessories, and a broad range of tips and lengths, the Impact Performance Series is the most versatile on the market and has what it takes to get any job done. We even used it to make this ad.

irwin.co.uk

IRWIN® TOOLS

©2015 IRWIN Industrial Tools. All Rights Reserved.

Introducing the Brand New Range of Woodturning Chucks and Jaws

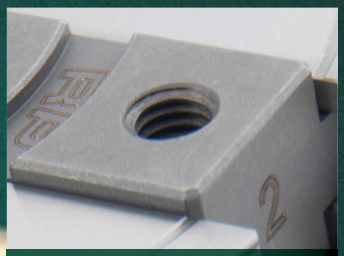
We are extremely proud to introduce the brand new range of Record Power woodturning chucks and jaws. This exclusive new range has been developed using Record Power's extensive experience and knowledge of woodturning in conjunction with a group of highly experienced professional and hobby woodturners, to bring you the ultimate in quality, versatility and value.



Precision Engineered Gears
Super Geared True-Lock™ technology ensures high levels of accuracy to provide smooth and solid operation.



Jaw Fixing System
The SC3 and SC4 feature a jaw fixing which will not only fit the Record Power series of Jaws but is also fully compatible with Nova and Robert Sorby brand jaws.



Heavy Duty Jaw Slides
The improved and enlarged jaw slides give unsurpassed holding power and load bearing ability. They are made from high tensile steel, reinforced with nickel and copper and heat-treated to ensure superior strength.



Sealed Backing Plate with Full Indexing
The SC4 features a strong backing plate to protect the gear mechanism from dust and 72-point indexing around the full circumference.



Brand New Exclusive Jaw Range
Fully compatible with Nova brand chucks



SC3 Geared Scroll Chuck Package
£119.95



SC4 Professional Geared Scroll Chuck Package
£149.95



Prices valid until 31.8.2015

See online for full details

RECORD POWER
ESTABLISHED 1909®

Over 100 years
Experience • Knowledge
Support • Expertise

RECORD POWER ESTABLISHED 1909
STARTRITE
CORONET
BURGESS

Incorporating some of the most famous brands in woodworking, Record Power have been manufacturing fine tools & machinery for over 100 years. Built to last we provide support for thousands of machines well over 50 years old, which are still in daily use. Testimony to the sound engineering principles and service support that comes with a Record Power product.

www.recordpower.co.uk Tel: 01246 571 020